

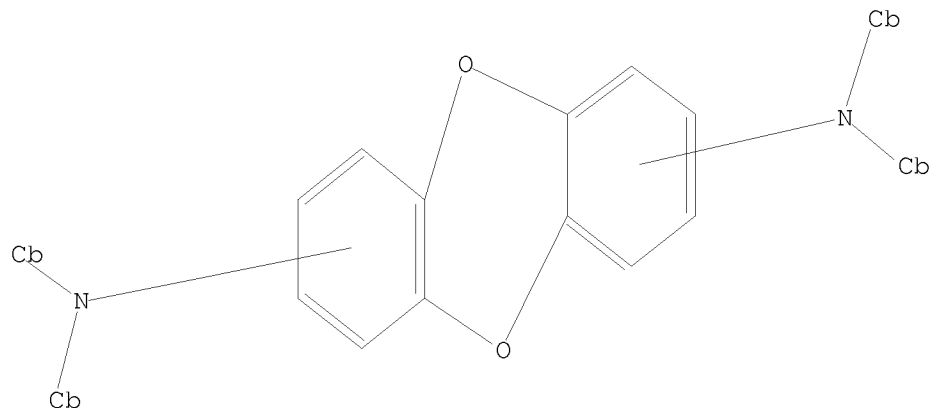
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L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 ful

FULL SEARCH INITIATED 17:38:13 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 797864 TO ITERATE

100.0% PROCESSED 797864 ITERATIONS (6 INCOMPLETE) 9 ANSWERS
SEARCH TIME: 00.00.06

L2 9 SEA SSS FUL L1

=> d 1-9

L2 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN

RN 923030-30-2 REGISTRY

ED Entered STN: 23 Feb 2007

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-diphenyl- (CA INDEX NAME)

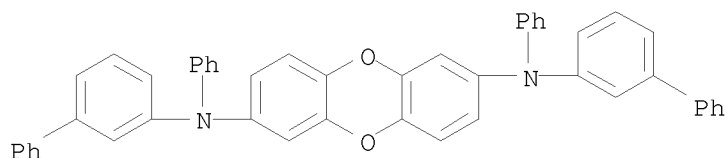
OTHER NAMES:

CN 2,7-Bis[N-(biphenyl-3-yl)-N-phenylamino]dibenzodioxin

MF C48 H34 N2 O2

SR CA

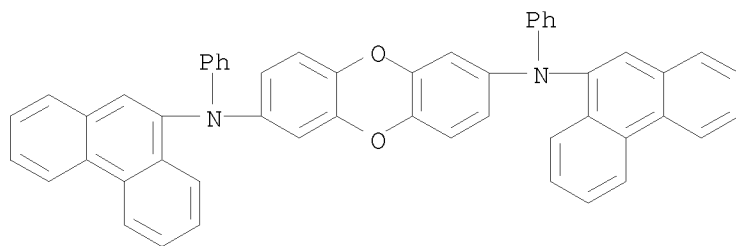
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 862600-36-0 REGISTRY
ED Entered STN: 07 Sep 2005
CN Dibenzob[e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dibenzob[e][1,4]dioxin-2,7-diamine, N,N'-di-9-phenanthrenyl-N,N'-diphenyl- (9CI)
OTHER NAMES:
CN 2,7-Bis[N-(9-phenanthryl)-N-phenylamino]dibenzodioxin
MF C52 H34 N2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

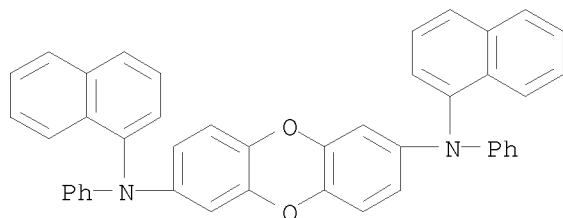


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 3 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
RN 862600-35-9 REGISTRY
ED Entered STN: 07 Sep 2005
CN Dibenzob[e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dibenzob[e][1,4]dioxin-2,7-diamine, N,N'-di-1-naphthalenyl-N,N'-diphenyl- (9CI)
OTHER NAMES:
CN 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin

MF C44 H30 N2 O2
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

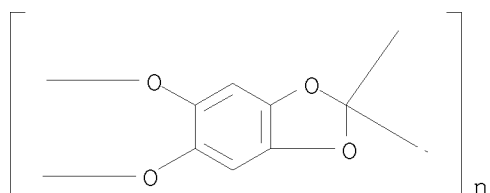


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 132750-11-9 REGISTRY
 ED Entered STN: 22 Mar 1991
 ITERATION INCOMPLETE
 CN Poly[1,3-benzodioxol-2-ylidene:5,6-diyl-5,6-bis(oxy)] (9CI) (CA INDEX NAME)
 DR 133189-74-9
 MF (C7 H2 O4)n
 CI PMS
 PCT Double strand, Polyother
 SR CA
 LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK



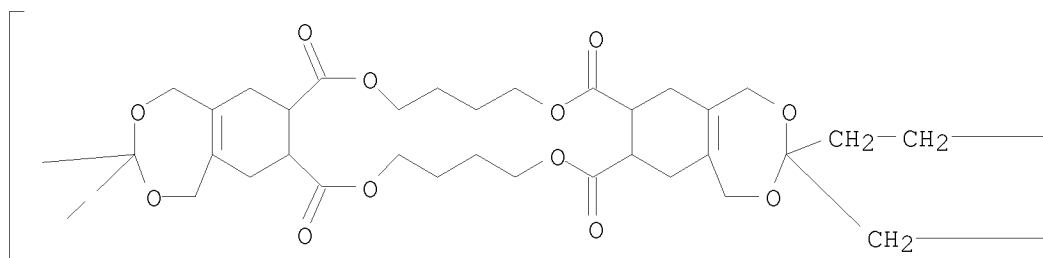
2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 50979-25-4 REGISTRY
 ED Entered STN: 16 Nov 1984
 ITERATION INCOMPLETE
 CN Poly(6,6a,7,9,10,11,12,14a,15,16,21,21a,22,24,25,26,27,29,29a,30-eicosahydro-7,14,22,29-tetraoxo-1H,5H,14H,20H-[1,6,11,16]tetraoxacycloeicosino[3,4-h:13,14-h']bis[2,4]benzodioxepin-3,18-

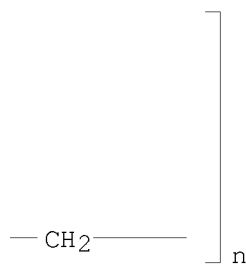
diylidene-18,18-di-1,2-ethanediyl) (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 1H,5H,14H,20H-[1,6,11,16]Tetraoxacycloeicosino[3,4-h:13,14-h']bis[2,4]benzodioxepin, deriv., polymer
 OTHER NAMES:
 CN Poly[6,6a,7,9,10,11,12,14a,15,16,21,21a,22,24,25,26,27,29,29a,30-eicosahydro-7,14,22,29-tetraoxo-1H,5H,14H,20H-[1,6,11,16]tetraoxacycloeicosino[3,4-h:13,14-h]bis[2,4]benzodioxepin-3,18-diylidene)-18,18-diethylene]
 MF (C34 H44 O12)n
 CI PMS
 PCT Double strand, Polyother
 LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK

PAGE 1-A



PAGE 1-B

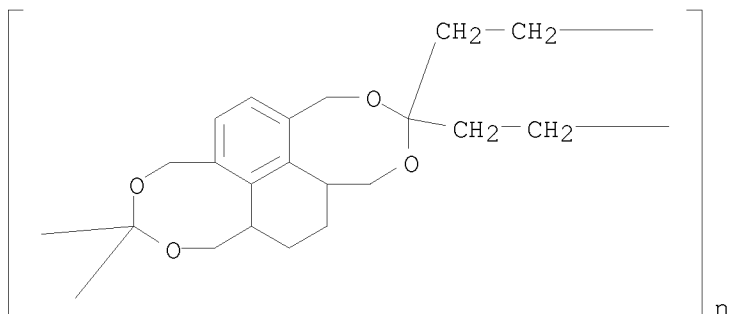


1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 39861-81-9 REGISTRY
 ED Entered STN: 16 Nov 1984
 ITERATION INCOMPLETE
 CN Poly[(1,5,5a,6,7,7a,8,12-octahydronaphtho[1,8-ef:4,5-e'f']bis[1,3]dioxocin-3,10-diylidene)-10,10-di-1,2-ethanediyl] (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Naphtho[1,8-ef:4,5-e'f']bis[1,3]dioxocin, deriv., polymer
 OTHER NAMES:

CN 1,4-Cyclohexanedione-1,4,5,8-tetrakis(hydroxymethyl)-1,2,3,4-tetrahydronaphthalene polymer, SRU
 MF (C20 H24 O4)n
 CI PMS
 PCT Double strand, Polyother
 LC STN Files: CA, CAPLUS

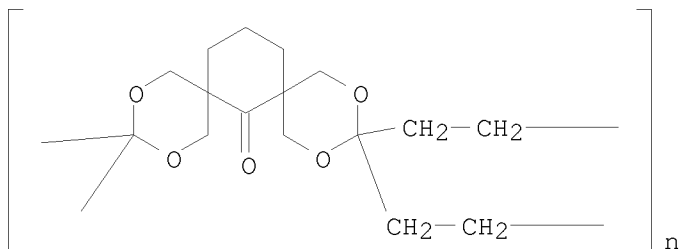
RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 39723-74-5 REGISTRY
 ED Entered STN: 16 Nov 1984
 ITERATION INCOMPLETE
 CN Poly[(7-oxo-2,4,10,12-tetraoxadispiro[5.1.5.3]hexadecane-3,11-diylidene)-11,11-di-1,2-ethanediyl] (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2,4,10,12-Tetraoxadispiro[5.1.5.3]hexadecane, deriv., polymer
 OTHER NAMES:
 CN 1,4-Cyclohexanedione-2,2,6,6-tetrakis(hydroxymethyl)cyclohexanone polymer, SRU
 MF (C16 H22 O5)n
 CI PMS
 PCT Double strand, Polyother
 LC STN Files: CA, CAPLUS

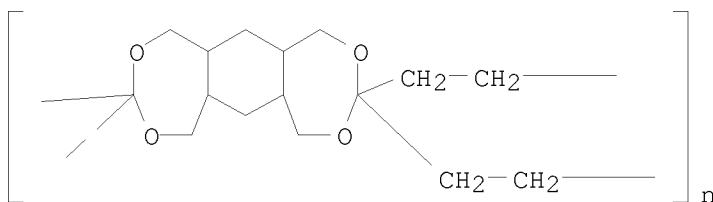
RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 8 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 39723-73-4 REGISTRY
 ED Entered STN: 16 Nov 1984
 ITERATION INCOMPLETE
 CN Poly(octahydro-1H,5H-benzo[1,2-e:4,5-e']bis[1,3]dioxepin-3,9-diylidene-9,9-di-1,2-ethanediyl) (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 1H,5H-Benzo[1,2-e:4,5-e']bis[1,3]dioxepin, deriv., polymer
 OTHER NAMES:
 CN 1,4-Cyclohexanedione-1,2,4,5-tetrakis(hydroxymethyl)cyclohexane polymer, SRU
 MF (C16 H24 O4)n
 CI PMS
 PCT Double strand, Polyother
 LC STN Files: CA, CAPLUS

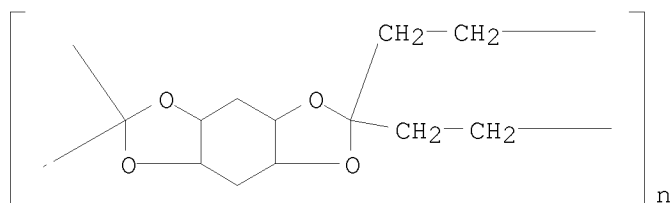
RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 9 OF 9 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 39723-72-3 REGISTRY
 ED Entered STN: 16 Nov 1984
 ITERATION INCOMPLETE
 CN Poly[(hexahydrobenzo[1,2-d:4,5-d']bis[1,3]dioxole-2,6-diylidene)-6,6-di-1,2-ethanediyl] (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Benzo[1,2-d:4,5-d']bis[1,3]dioxole, deriv., polymer
 OTHER NAMES:
 CN 1,4-Cyclohexanedione-cis,cis-1,2,4,5-tetrahydroxycyclohexane polymer, SRU
 MF (C12 H16 O4)n
 CI PMS
 PCT Double strand, Polyother
 LC STN Files: CA, CAPLUS

RELATED POLYMERS AVAILABLE WITH POLYLINK



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil caplus
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
196.82	197.03

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FILE COVERS 1907 - 27 Sep 2008 VOL 149 ISS 14
FILE LAST UPDATED: 26 Sep 2008 (20080926/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

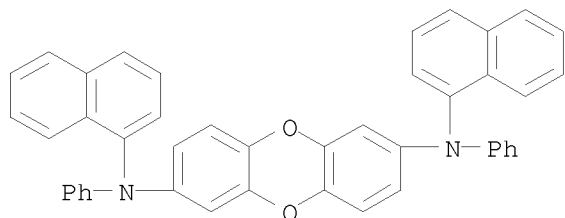
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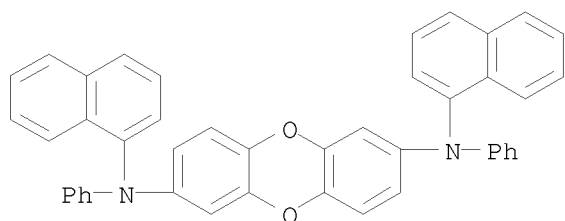
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L3 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
IT 862600-35-9P, 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of heterocyclic compds. and organic electroluminescent device using them)

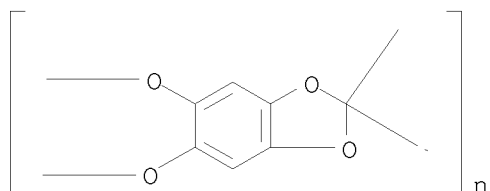
RN 862600-35-9 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



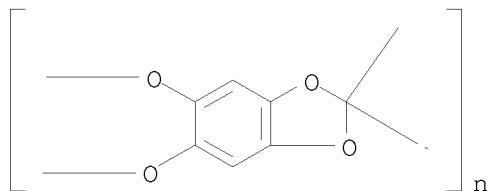
L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
 IT 862600-35-9P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (aminodibenzodioxin derivative for organic electroluminescent device)
 RN 862600-35-9 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



L3 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
 IT 132750-11-9P
 RL: PREP (Preparation)
 (preparation of, acid- and heat-resistant)
 RN 132750-11-9 CAPLUS
 CN Poly[1,3-benzodioxol-2-ylidene:5,6-diyl-5,6-bis(oxy)] (9CI) (CA INDEX NAME)

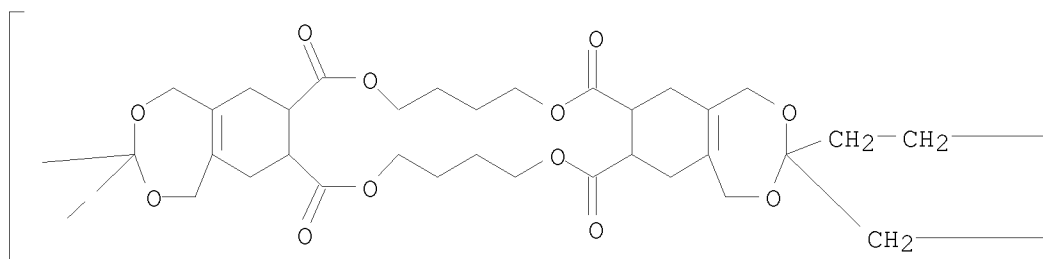


L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
 IT 132750-11-9P, 2,2,6,6-Tetrachlorobenzo[1,2-d:4,5-d']bis[1,3]dioxole-1,2,4,5-tetrahydroxybenzene copolymer, SRU
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, from tetrachlorobenzobisdioxole and tetrahydroxybenzene)
 RN 132750-11-9 CAPLUS
 CN Poly[1,3-benzodioxol-2-ylidene:5,6-diyl-5,6-bis(oxy)] (9CI) (CA INDEX NAME)

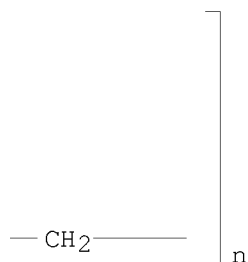


L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
 IT 50979-25-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 50979-25-4 CAPLUS
 CN Poly(6,6a,7,9,10,11,12,14a,15,16,21,21a,22,24,25,26,27,29,29a,30-eicosahydro-7,14,22,29-tetraoxo-1H,5H,14H,20H-[1,6,11,16]tetraoxacycloeicosino[3,4-h:13,14-h']bis[2,4]benzodioxepin-3,18-diylidene-18,18-di-1,2-ethanediyl) (9CI) (CA INDEX NAME)

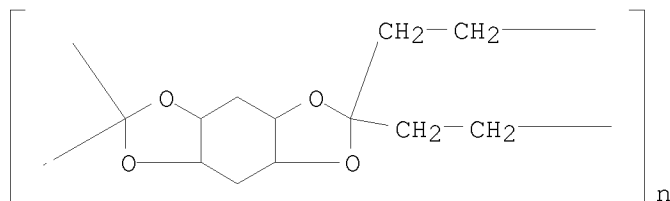
PAGE 1-A



PAGE 1-B



L3 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
 IT 39723-72-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 39723-72-3 CAPLUS
 CN Poly[(hexahydrobenzo[1,2-d:4,5-d']bis[1,3]dioxole-2,6-diylidene)-6,6-di-
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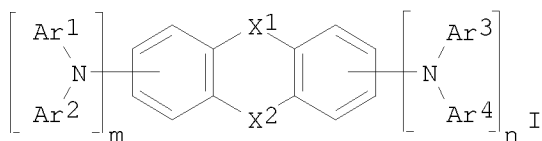


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L3 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2007:150578 CAPLUS
 DN 146:206317
 TI Preparation of heterocyclic compounds and organic electroluminescent
 device using them
 IN Kai, Takahiro; Yamamoto, Toshihiro; Komori, Masaki; Hotta, Masanori;
 Sawada, Yuichi
 PA Nippon Steel Chemical Co., Ltd., Japan
 SO PCT Int. Appl., 39pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007015412	A1	20070208	WO 2006-JP314849	20060727
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	CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
	GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,				
	KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,				
	MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,				
	SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,				
	US, UZ, VC, VN, ZA, ZM, ZW				
	RW:				
	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,				
	IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,				
	CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,				
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	CN 101233127	A	20080730	CN 2006-80028335	20080201
	KR 2008037699	A	20080430	KR 2008-705258	20080303
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	WO 2006-JP314849	W	20060727		
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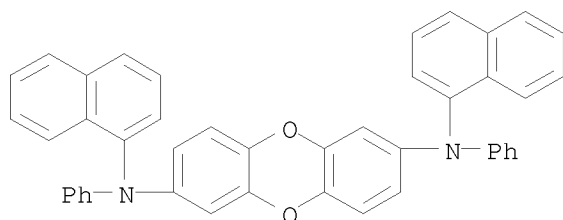
AB Heterocyclic compds. such as benzodioxin and thianthrene derivs., [X1, X2 = O, S, NR; R = H, alkyl, (un)substituted aryl; Ar1, Ar2, Ar3, Ar4 = (un)substituted aryl; or Ar1 and Ar2 may form a nitrogen-containing heterocyclic ring together with the nitrogen atom they are bonded with, and so may Ar3 and Ar4; m, n = an integer of 1 or 2], useful as hole transporting materials, are prepared. An organic electroluminescent (EL) device containing the compound I in an organic layer is disclosed. This organic EL

device possesses simple structure which is improved in luminous efficiency and sufficiently secured in driving stability. Thus, a solution of 0.79 g Pd(OAc)₂ in 50 mL xylene was treated with 2.84 g tri(tert-butyl)phosphine and stirred at 80° for 30 min, and the resulting solution was transferred to a heated (80°) solution of 2,7-diaminobenzodioxin 7.54, 2,2'-dibromobiphenyl, 22.0, and sodium tert-butoxide 28.41 g in 500 mL xylene. The resulting mixture was heated to 125° and stirred for 5 h to give, after workup, 25.4% 2,7-bis(9-carbazolyl)dibenzodioxin (II) (4.60 g). An organic EL device with a luminous layer fabricated by vapor codeposition of II and Ir(ppy)₃ (ppy = 2-phenylpyridine) exhibited luminous efficiency of 10 mA/cm², luminance of 2,400 sd/m², visual luminous efficiency of 8.2 lm/W, and luminance half life of 1,500 h.

IT 862600-35-9P, 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin
862600-36-0P, 2,7-Bis[N-(9-phenanthryl)-N-phenylamino]dibenzodioxin 923030-30-2P, 2,7-Bis[N-(biphenyl-3-yl)-N-phenylamino]dibenzodioxin
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of heterocyclic compds. and organic electroluminescent device using them)

RN 862600-35-9 CAPLUS

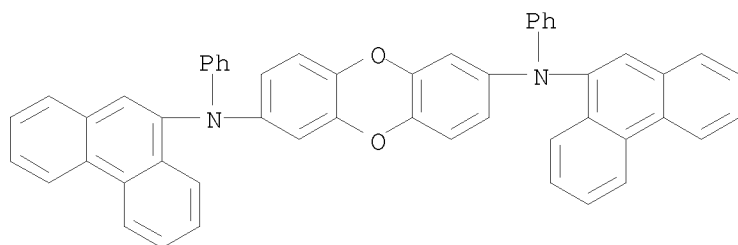
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



RN 862600-36-0 CAPLUS

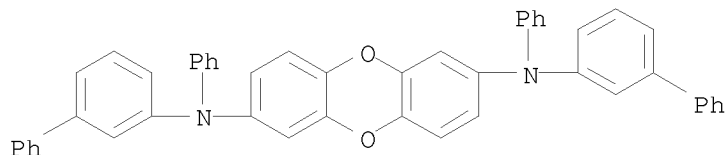
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-

diphenyl- (CA INDEX NAME)



RN 923030-30-2 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-diphenyl- (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:823683 CAPLUS

DN 143:238789

TI Aminodibenzodioxin derivative and organic electroluminescent device using same

IN Kai, Takahiro; Sekiya, Hirokatsu; Miyazaki, Hiroshi; Ishikawa, Shigetaka

PA Nippon Steel Chemical Co., Ltd., Japan

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

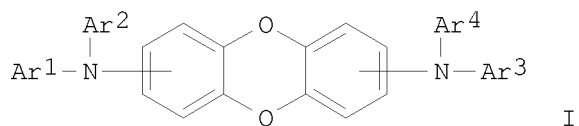
DT Patent

LA Japanese

FAN.CNT 1

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PI	WO 2005075451	A1	20050818	WO 2005-JP1079	20050127
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

	CN 1918141	A	20070221	CN 2005-80004456	20050127
	US 20070129555	A1	20070607	US 2006-588373	20060802
PRAI	JP 2004-32380	A	20040209		
	WO 2005-JP1079	W	20050127		
OS	MARPAT 143:238789				
GI					



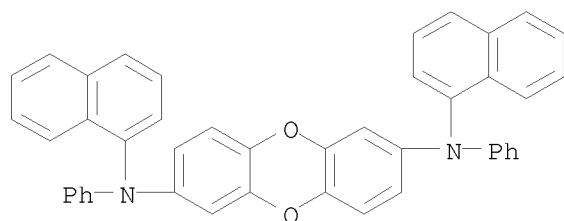
AB Disclosed is a highly reliable material for organic electroluminescent devices which has high luminance and high luminous efficiency, hardly deteriorates in emission, and is excellent in use and storage at high temps. Also disclosed is an organic electroluminescent device using such a material. The material for organic electroluminescent devices is a diaminodibenzodioxin derivative represented by the general formula I, and it can be included in a light-emitting layer, hole transport layer or hole injection layer of an organic electroluminescent device. In the formula, Ar1, Ar2, Ar3 and Ar4 resp. represent a substituted or unsubstituted aryl group. Incidentally, Ar1 and Ar2 as well as Ar3 and Ar4 may form a nitrogen-containing heterocyclic ring together with a nitrogen bonded thereto.

IT 862600-35-9P 862600-36-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminodibenzodioxin derivative for organic electroluminescent device)

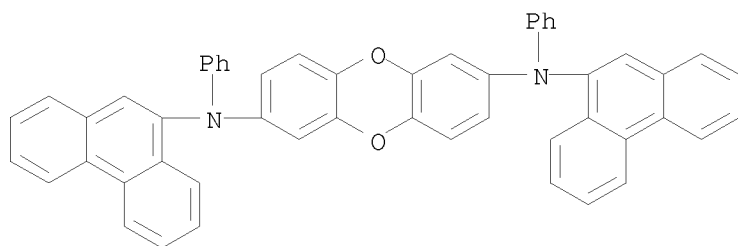
RN 862600-35-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)



RN 862600-36-0 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L5 95 SEA SSS FUL L4

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FULL ESTIMATED COST	178.36	403.93
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
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FILE LAST UPDATED: 26 Sep 2008 (20080926/ED)

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=> s 15

L6 52 L5

=> d 40-52 bib abs hitstr

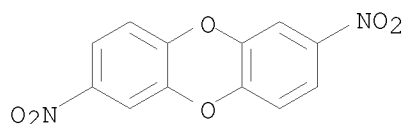
L6 ANSWER 40 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1964:7975 CAPLUS
DN 60:7975
OREF 60:1363c-e
TI Sorption of copper and zinc cations on some minerals
AU Mitrofanov, S. I.; Kushnikova, V. G.
SO Sb. Tr. Gos. Nauchn.Issled. Inst. Tsvetn. Metal. (1962), No. 19, 34-9
DT Journal

LA Unavailable
 AB By using radioactive Cu (CA 54, 19083b) the adsorption of Cu on pyrite, chalcopyrite, galena, smithsonite, and hemimorphite was studied. With chalcopyrite and pyrite the sorption of Cu²⁺ increases with increased concentration and pH; with pyrite the maximum adsorption is at pH 9.5, with chalcopyrite at pH 7.0. The sorption of Cu on galena increases sharply with decreased pH and increased Cu concentration. With pyrite from a Cu-cyanide complex the sorption of Cu increases with decreased pH up to 5.5 and, after 3 min., reaches a constant value of about 0.007 mg./g. With sulfidized Zn minerals, sorption curves of Cu have a maximum which coincides with maximum with sphalerite and pyrrhotite, while with nonsulfidized hemimorphite the maximum is shifted toward pH 4.5. With pyrite the addition of pyrite xanthogenate causes a decrease sorption of Cu, while with pyrrhotite, galena, and chalcopyrite the reverse is true up to the addition of 200% of xanthogenate; above this value the sorption of Cu decreases. A study with ⁶⁵Zn has shown that the sorption of Zn on sulfides is also selective, depending on pH; in the presence of Na diethyldithiophosphate the sorption of Zn increases with sphalerite and pyrite at pH 5.5-7.0, while with chalcopyrite the process of Zn sorption is conventional.

IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
 (magnetic resonance absorption of, in H₂SO₄)

RN 71400-33-4 CAPLUS

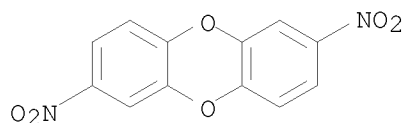
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



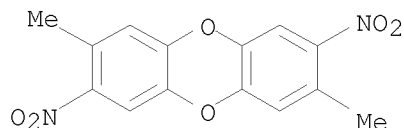
L6 ANSWER 41 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1963:473059 CAPLUS
 DN 59:73059
 OREF 59:13512a-c
 TI Cation radicals of dibenzo-p-dioxin and related compounds
 AU Tomita, Masao; Ueda, Shinichi; Nakai, Yasuto; Deguchi, Yasho; Takaki, Hideo
 CS Univ. Kyoto, Japan
 SO Tetrahedron Letters (1963), (18), 1189-94
 CODEN: TELEAY; ISSN: 0040-4039
 DT Journal
 LA Unavailable
 AB cf. CA 54, 24748e. Dibenzo-p-dioxin (I) and its octamethyl derivative (II) gave a blue color and electron spin resonance (E.S.R.) signals in concentrated H₂SO₄ without addition of oxidizing materials. The E.S.R. study of the color from I showed the presence of cation radicals (III). The spectrum of III (g value .apprx.2.0036) with 5 distinct lines (intensity ratios 1:4:6:4:1) indicated a coupling of an unpaired electron spin with a set of 4 equivalent H nuclei in either 1,4,6,9- or 2,3,7,8-positions, resp. Addnl. information was obtained from a study of dibenzo-p-dioxin-2,7-disulfonic acid (IV). IV in concentrated H₂SO₄ with KNO₃ gave a 3-line spectrum (intensity ratio 1:2:1) only. Accordingly, there must be a strong contribution from 3,8 protons to give the major pattern of the cation, and the contribution

of 2,3,7,8 protons predominated over that of the 1,4,6,8,9 protons in III. II and 2,7-dimethyl-3,8-diethyl- and 2,3,7,8-tetrabromo-derivs. of I all gave E.S.R. spectra in 98% H₂SO₄ with KNO₃. In all spectra, the field sweep increased at the same rate from left to right on the figures with a modulation amplitude of 0.1 gauss. The spectra were calibrated with aqueous K peroxyamine disulfonate.

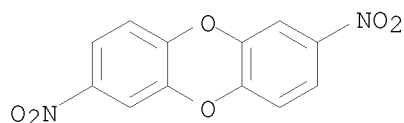
IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
 (magnetic resonance absorption of, in H₂SO₄ solution)
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



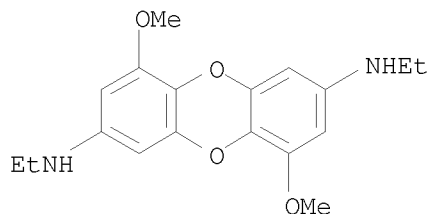
L6 ANSWER 42 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1963:469133 CAPLUS
 DN 59:69133
 OREF 59:12793f-g
 TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXV. Reaction of nitric-sulfuric acid mixture and dibenzo-p-dioxin derivatives
 AU Ueda, Shinichi
 CS Univ. Kyoto, Japan
 SO Yakugaku Zasshi (1963), 639-42, 657-8
 CODEN: YKKZAJ; ISSN: 0031-6903
 DT Journal
 LA Unavailable
 AB Dibenzo-p-dioxin (0.1 g.) at -20° treated with a mixture of 2.8 ml. concentrated H₂SO₄ and 2.4 ml. HNO₃ (d. 1.42), stirred 2 min., and the product poured on 100 g. ice and filtered gave 90 mg. 2,7-dinitrodibenzo-p-dioxin, m. 256°. Similarly, 0.1 g. 2,7-dimethyldibenzo-p-dioxin gave 80 mg. 2,7-dimethyl-3,8-dinitrodibenzo-p-dioxin, m. 243-3.5° (Me₂CO). 1,6-Dibromodibenzo-p-dioxin treated as above remained unchanged.
 IT 14967-03-4P, Dibenzo-p-dioxin, 2,7-dimethyl-3,8-dinitro-
 71400-33-4P, Dibenzo-p-dioxin, 2,7-dinitro-
 RL: PREP (Preparation)
 (preparation of)
 RN 14967-03-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)



RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 43 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1963:469132 CAPLUS
 DN 59:69132
 OREF 59:12793c-f
 TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXIV. Synthesis of
 2,9-dimethyl-6,13-dimethoxy-1,2,3,4,8,9,10,11-octahydro-p-dioxino[2,3-
 h:5,6-h']diisoquinoline
 AU Ueda, Shinichi
 CS Univ. Kyoto, Japan
 SO Yakugaku Zasshi (1963) 639-42
 CODEN: YKKZAJ; ISSN: 0031-6903
 DT Journal
 LA Unavailable
 GI For diagram(s), see printed CA Issue.
 AB 2,7-Bis(2-nitrovinyl)-4,9-dimethoxy dibenzo-p-dioxin (1 g.) in 700 ml.
 tetrahydrofuran (THF) treated with 6 g. LiAlH₄, heated 5 hrs. at
 70°, cooled, the solution (cooled with ice and NaCl) treated with 10
 ml. 20% K Na tartrate in 5 ml. THF, and, after the evolution of gas
 ceased, the solution concentrated gave
 2,7-bis(2-aminoethyl)-4,9-dimethoxydibenzo-p-
 dioxin (I). 2H₂O, m. 150-3° (CHCl₃); I dioxalate m. 203-5°
 (decomposition). I (1 g.) in 2 ml. EtOH treated with 0.5 ml. HCO₂H, Et₂O
 added, the precipitate collected, heated 1 hr. at 150°, the residue in
 CHCl₃ washed with 2% H₂SO₄ and concentrated gave 0.2 g. 2,7-bis-(2-
 formylaminoethyl)-4,9-dimethoxydibenzo-p-dioxin (II), m. 148-50°.
 II (0.2 g.) in 30 ml. CHCl₃ treated with 7.5 ml. POCl₃, heated 5 hrs. at
 125°, the solution concentrated in vacuo, the residue extracted with 10% HCl,
 washed with C₆H₆, made alkaline with NH₄OH and the product extracted with CHCl₃
 gave 6,13-dimethoxy-3,4,10,11-tetrahydro-p-dioxino [2,3-h:5,6-h']
 diisoquinoline (III), yellow oil; III. 2MeI. 2H₂O m. >300°. III (20
 mg.) in 20 ml. MeOH and 0.2 g. NaBH₄ kept 3 hrs. at 15°, the solution
 concentrated, and the residue in 5% KOH extracted with CHCl₃ gave
 6,13-dimethoxy-1,2,3,4,8,9,10,11 -octahydro-p-dioxino[2,3-h:5,6-
 h']diisoquinoline (IV), needles, m. 248-53°. IV (30 mg.) in 8 ml.
 HCO₂H and 3 ml. 37% HCHO refluxed 2 hrs., the solution concentrated in vacuo,
 the
 residue in 5% KOH extracted with CHCl₃, taken up in 2% H₃SO₄, made alkaline
 with
 NH₄OH, and the product extracted with CHCl₃ gave 2,9-dimethyl-6,13-dimethoxy-
 1,2,3,4,8,9,10,11-octahydro-p-dioxino-[2,3-h:5,6-h']diisoquinoline (V), m.
 254-6°; dipicrate m. >280°. III. 2MeI (10 mg.) in 20 ml.
 MeOH and 50 mg. NaBH₄ stirred 1 hr., the solution concentrated, and the residue
 treated as usual gave V, m. 253-5°.
 IT 98762-76-6P, Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy-
 RL: PREP (Preparation)
 (preparation of)
 RN 98762-76-6 CAPLUS
 CN Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy- (7CI) (CA INDEX
 NAME)



L6 ANSWER 44 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1963:469131 CAPLUS

DN 59:69131

OREF 59:12792g-h,12793a-c

TI Dibenzop-dioxin (diphenylene dioxide) derivatives. XXXIII. Substitution reaction of 1,6-dimethoxydibenzo-p-dioxin and 1,6-dibromodibenzo-p-dioxin

AU Ueda, Shinichi; Teraoka, Akio

CS Univ. Kyoto, Japan

SO Yakugaku Zasshi (1963), 83, 552-4

CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

LA Unavailable

GI For diagram(s), see printed CA Issue.

AB cf. *ibid.* 82, 1333-6(1962); CA 58, 3419e). 2,6-Br₂C₆H₃OH (I) (60 g.) in 80 ml. MeOH treated with 13.6 g. KOH in 120 ml. MeOH, the solution evaporated to dryness, the residue and 4.8 g. Cu heated 1 hr. at 180-90°, and the product extracted with C₆H₆, washed with 5% KOH, and purified (C₆H₆-Al₂O₃) gave 3.1 g. 1,6-dibromodibenzo-p-dioxin(II), m. 221.5-2.0°. I (1 g.), 1 g. Cu, and 5 ml. C₅H₅N heated 2.5 hrs. at 145° and the product in C₆H₆ chromatographed through Al₂O₃ gave 10 mg. dibenzo-p-dioxin, m. 118°. 1,6-Dimethoxydibenzo-p-dioxin (III) (0.1 g.) in 40 ml. AcOH treated with 0.39 g. Br in 5 ml. AcOH, heated 2 hrs. at 40-50°, 10% NaHSO₈ added, and the precipitate filtered off gave 140 mg. 4,9-di-Br analog

(IV) of III, m. 277° (C₆H₆). II (0.2 g.) in 100 ml. AcOH at 70° was treated dropwise with 20 ml. fuming HNO₃, stirred 1.5 hrs., the solution (cooled with ice-NaCl) treated with 100 ml. H₂O, and poured into 200 ml. H₂O to give 0.1 g. 1,6-dibromo-4,9-dinitrobenzo-p-dioxin (V), m. 255-7°. V (40 mg.) in 20 ml. AcOH and 2 ml. dioxane reduced with Pd-C and H, the product in 25 ml. each of H₂O and H₂SO₄ treated dropwise with a solution of 50 mg. NaNO₂ in 2 ml. H₂O, kept 1 hr. at 5-10°, the product poured into a solution of a solution of 16.5 ml. H₂SO₄ and 15 ml. H₂O

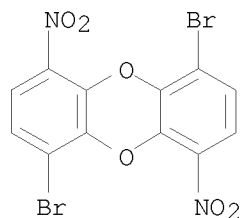
at 165°, stirred 2 hrs. and extracted with CHCl₃, kept 4 days with CH₂N₂Et₂O, and the residue treated as usual gave IV, m. 262-7°. III (0.1 g.) in 40 ml. AcOH at 30° treated with a solution of 1 ml. fuming HNO₃ at 30°, kept 1 hr. at 55°, 40 ml. H₂O added, and the product filtered off gave a small amount of 4-nitro-1,6-dimethoxydibenzo-p-dioxin, needles, m. 235°. III (0.1 g.) in 40 ml. AcOH at 60° treated with 10 ml. fuming HNO₃, stirred 4 hrs. at 80-90°, 150 ml. H₂O added, and the product filtered off gave 1,6-dimethoxy-4,9-dinitrodibenzo-p-dioxin, m. above 300° (Me₂CO).

IT 91268-64-3P, Dibenzop-dioxin, 1,6-dibromo-4,9-dinitro-

92906-01-9P, Dibenzo-p-dioxin, 1,6-dimethoxy-4,9-dinitro-
 RL: PREP (Preparation)
 (preparation of)

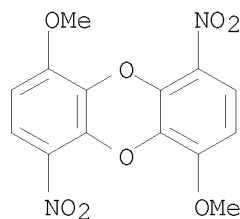
RN 91268-64-3 CAPLUS

CN Dibenzo-p-dioxin, 1,6-dibromo-4,9-dinitro- (7CI) (CA INDEX NAME)



RN 92906-01-9 CAPLUS

CN Dibenzo-p-dioxin, 1,6-dimethoxy-4,9-dinitro- (7CI) (CA INDEX NAME)



L6 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1963:20719 CAPLUS

DN 58:20719

OREF 58:3419e-h,3420a-b

TI Dibenzo-p-dioxin derivatives. XXXI. Synthesis of 2,7-bis(2-aminoethyl)-4,9-dimethoxydibenzo-p-dioxin

AU Ueda, Shinichi

CS Univ. Kyoto

SO Yakugaku Zasshi (1962), 82, 714-18

CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

LA Unavailable

AB cf. CA 55, 23539a. 2,7-Dimethyldibenzo-p-dioxin (0.5 g.) in 10 ml. each of H2O and C5H5N treated with 5.3 g. KMnO4 portionwise, heated 1 hr., the solution concentrated, concentrated HCl added dropwise and the precipitate filtered off gave

0.45 g. dibenzo-p-dioxin-2,7-dicarboxylic acid (I), m. above 300°, di-Me ester, m. 248°. o-Cresol (36 g.) at 22° treated with 55 g. concentrated H2SO4 dropwise, heated 8 hrs. at 100°, the solution at 0° treated dropwise with 56 g. Br in 50 g. PhNO2, kept 5 hrs. at 10°, the excess Br removed by addition of 2% NaHSO3, the PhNO2 steam distilled and the residue extracted with Et2O gave 54 g. 6-bromo-o-cresol, b. 208°; this 2 g. in MeOH and 0.6 g. KOH concentrated, the residue with 320 mg. Cu heated 30 min. at 195° and the

product extracted with C₆H₆ gave 60 mg. 1,6-dimethyldibenzo-p-dioxin (II), m. 166°. Oxidation of II with KMnO₄ as in I gave 78% dibenzo-p-dioxin-1,6-dicarboxylic acid (III), m. above 300°; di-Me ester of III, needles, m. 215°. Zn-Hg (from 400 g. Zn, 40 g. HgCl₂, 600 ml. H₂O, and 20 ml. concentrated HCl) treated with a mixture of 200

g.

5-bromovanillin, 700 ml. PhMe, 700 ml. concentrated HCl and 300 ml. H₂O, refluxed 2.5 hrs., refluxed 20 hrs. with addition of concentrated HCl, 40 ml.

in

every 3 hrs., and the PhMe layer concentrated gave 9.5 g. 2-bromo-6-methoxy-p-cresol (IV), b₃ 148°, m. 51°; the crystals separated during the concentration of IV gave 3,3'-dimethoxy-5,5'-dibromo-4,4'-stilbenediol (V), needles, sublimes at 220°. Methylation of V with CH₂N₂ gave 3,3',4,4'-tetramethoxy-5,5'-dibromostilbene, m. 194-6°. A mixture of 3.5 g. KOH, 25 ml. HOCH₂CH₂OH, 1 g. 5-bromovanillin, and 4 ml. 80% N₂H₄.H₂O refluxed 3.5 hrs., heated 7.5 hrs. at 200°, cooled, 25 ml. H₂O added, poured in 15 ml. 20% HCl and the product extracted with C₆H₆ gave 0.4 g. IV, m. 50°. IV (10 g.) treated with 2.5 g. KOH in MeOH, the solution concentrated, the residue with 1.6 g. Cu heated 1.5 hrs. at 200°, the product in C₆H₆ chromatographed through Al₂O₃ gave 250 mg. 2,7-dimethyl-4,9-dimethoxydibenzo-p-dioxin (VI), needles, m. 204°. IV (50 g.) in 38 ml. C₆H₆N and 10 g. Cu heated 2.5 hrs. at 140° and the product treated as usual gave 4.16 g. VI, m. 204°. Oxidation of 3.5 g. VI in 195 ml. C₅H₅N and 100 ml. H₂O with 45 g. KMnO₄ gave 3.2 g. 4,9-dimethoxydibenzo-p-dioxin-2,7-dicarboxylic acid (VII), m. above 300°; di-Me ester, needles, m. 290°. VII (0.8g.) and 16 g. SOCl₂ heated 1 hr. at 75° and the product concentrated gave 0.89 g. acid chloride (VIII) of VII, columns, m. 257° VIII (0.4 g.) in 100 ml. PhMe and 150 mg. 5% Pd-BaSO₄ treated with dry H₂ 2 hrs. at 120° and the solution concentrated in vacuo gave 0.19 g.

4,9-dimethoxydibenzo-p-dioxin-2,7-

dicarboxaldehyde (IX), needles, m. 315° (C₆H₆). IX (60 mg.) in 25 ml. MeOH and 1 ml. MeNO₂ at 0° treated dropwise with a solution of 1.5 g. KOH in 20 ml. MeOH, stirred 4.5 hrs. at 9°, the solution filtered, and the filtrate poured in 70 ml. 5% HCl gave 70 mg. 2,7-bis(2-nitrovinyl)-4,9-dimethoxydibenzo-p-dioxin (X), m. above 290°. X (50 mg.) in 30 ml. tetrahydrofuran (25 ml. more added later) treated with 300 mg. LiAlH₄, stirred 4.5 hrs. at 85°, cooled, 3.5 ml. 20% K Na tartrate and 3 ml. H₂O added and the product filtered gave 40 mg. 2,7-bis(2-aminoethyl)-4,9-dimethoxydibenzo-p-dioxin, oil; dioxalate-H₂O m. 196-8° (decomposition).

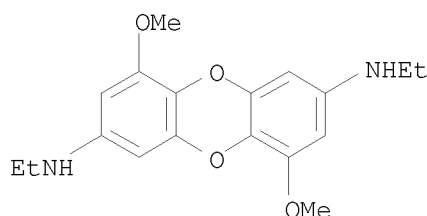
IT 98762-76-6P, Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy-

RL: PREP (Preparation)

(preparation of)

RN 98762-76-6 CAPLUS

CN Dibenzo-p-dioxin-2,7-bis(ethylamine), 4,9-dimethoxy- (7CI) (CA INDEX NAME)



L6 ANSWER 46 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1960:97607 CAPLUS

DN 54:97607

OREF 54:18528c-i

TI Dibenzo-p-dioxin derivatives. XXVIII. Chlorination and nitration reactions of 2,7-dimethyldibenzo-p-dioxin

AU Tomita, Masao; Ueda, Shinichi

CS Univ. Kyoto

SO Yakugaku Zasshi (1960), 80, 353-7

CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

LA Unavailable

AB cf. CA 53, 13152d. 2,7-Dimethyldibenzo-p-dioxin (I) (1 g.) in 20 ml. dry C₆H₆ (under reflux and exposure to ultraviolet light) was treated by passing in dry Cl gas 4 hrs. and cooled to give 0.8 g. 3,8-di-Cl derivative (II) of I, m. 231° (C₆H₆); the mother liquor yielded C₆H₆Cl₆, m. 157-8°. Catalytic reduction of II in dioxane with Pd-C ended with the recovery of unreacted II. I (1 g.) in 40 ml. AcOH treated dropwise with 9 ml. HNO₃ (d. 1.45) at 25°, the mixture stirred 30 min. at 50-5°, H₂O added, and the product filtered gave the 3,8-di-NO₂ derivative (III) of I, needles, m. 240-1° (Me₂CO). Catalytic reduction of 0.1 g. III in 40 ml. AcOEt and 20 ml. dioxane with Raney Ni yielded the 3,8-di-NH₂ derivative (IV) of I, needles, m. 271-3° (EtOH); HCl salt m. 285°. IV (80 mg.) in 25 ml. concentrated HCl at 0-5° treated with 50 mg. NaNO₂ in H₂O, the mixture stirred 30 min., the solution filtered, and the filtrate treated with 350 mg. Cu₂Cl₂ in 2.5 ml. 15% HCl and heated 7 hrs. at 100° gave II, m. 224-6°. m-Cresol (46 ml.) in 47 ml. AcOH at 0-5° added dropwise to 57.5 ml. 58% HNO₃ and 135 ml. AcOH, the mixture kept 1 hr. at 5°, 500 ml. ice H₂O added, and the precipitate filtered and steam distilled gave 12.5 g. 1,3,4-Me(HO)(O₂N)C₆H₃

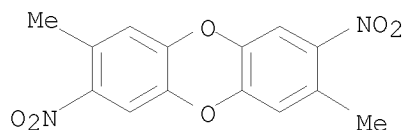
(V), needles, m. 56° (EtOH). V (4.3 g.) in 150 ml. CHCl₃ treated dropwise with 1.5 ml. Br in 20 ml. CHCl₃ at 35°, the mixture stirred 2 hrs. at 45°, 270 ml. 5% KOH added, the precipitate of K salt treated with concentrated HCl, and the product extracted with Et₂O gave the di-Br derivative of

V, m. 142°; the KOH-soluble portion acidified with HCl and the product extracted with Et₂O gave 1,3,4,6-Me(HO)Br(O₂N)C₆H₂ (VI), needles, m. 118-19° (C₆H₆). IV (0.14 g.) in 30 ml. H₂O and 5 ml. concentrated H₂SO₄ at 15.5° treated dropwise with 0.1 g. NaNO₂ in 2.5 ml. H₂O, the solution added dropwise to a solution of 15 ml. H₂O and 16.5 ml. concentrated

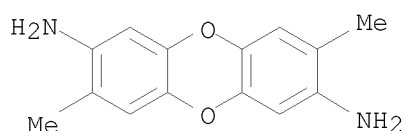
H₂SO₄ at 160°, stirred 2 hrs., cooled, and the product filtered gave 20 mg. powder; this in 25 ml. MeOH and 25 ml. CHCl₃ treated with CH₂N₂ (from 4 g. nitrosomethylurea) in Et₂O, kept 4 days, 0.5 ml. AcOH added and the

product extracted with Et2O gave 10 mg. 3,8-di-MeO analog (VII) of IV, needles, m. 203-5° (C6H6). Catalytic reduction of 0.2 g. 1,2,4,5-Me(MeO)(HO)(O2N)C6H2 in 20 ml. AcOEt with Raney Ni gave 1,2,4,5-Me(MeO)(HO)(H2N)C6H2 (VIII), plates, m. 152-3° (C6H6). VIII (0.46 g.) in 40 ml. 40% HBr at 2° treated with 210 mg. NaNO2 in 4 mL. H2O, the mixture stirred 2 hrs., heated 1 hr. at 100° with 0.1 g. Cu, and the product steam-distilled and extracted with Et2O gave a di-Br derivative (oil) of 1,2,4-Me(MeO)(HO)C6H3 (IX). IX (2.7 g.), m. 55-6°, in 50 ml. CHCl3 at -7° treated dropwise with 0.8 ml. Br in 20 ml. CHCl3, the mixture stirred 4 hrs., 10 ml. 1% NaHSO3 added, and the CHCl3 layer concentrated gave 1,2,4,5-Me(MeO)(HO)BrC6H2 (X), b2 113°, m. 53-4° (petr. ether). A solution of 4 g. X in 20 ml. MeOH and 1.03 g. KOH concentrated, the residue mixed with 620 mg. Cu, heated 30 min. at 180°, and the product extracted with warm C6H6, washed with 5% KOH, and passed through Al2O3 gave 20 mg. VII, m. 203-5°.

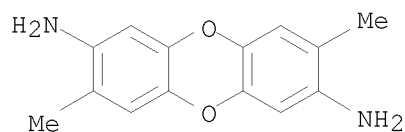
IT 14967-03-4P, Dibenzo-p-dioxin, 2,7-dimethyl-3,8-dinitro-
 71400-30-1P, Dibenzo-p-dioxin-2,7-diamine, 3,8-dimethyl-
 109259-51-0P, Dibenzo-p-dioxin-2,7-diamine, 3,8-dimethyl-,
 hydrochloride
 RL: PREP (Preparation)
 (preparation of)
 RN 14967-03-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)



RN 71400-30-1 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 3,8-dimethyl- (CA INDEX NAME)

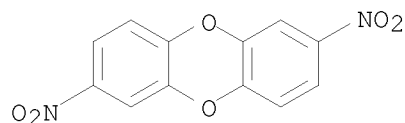


RN 109259-51-0 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 3,8-dimethyl-, hydrochloride (1:1)
 (CA INDEX NAME)



● HCl

L6 ANSWER 47 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1959:60681 CAPLUS
 DN 53:60681
 OREF 53:10967b-c
 TI Infrared absorption spectra of aromatic ether compounds. II.
 Characteristic bands of dibenzo-p-dioxin derivatives
 AU Narisada, Masayuki
 CS Shionogi & Co., Amagasaki
 SO Yakugaku Zasshi (1959), 79, 183-5
 CODEN: YKKZAJ; ISSN: 0031-6903
 DT Journal
 LA Unavailable
 AB Infrared absorption spectra of various dibenzo-p-dioxin derivs. were
 measured and a strong absorption band was found in the region of 1330-1280
 cm.-1, considered to originate in asym. stretching vibration of C-O. At
 the same time, examns. were made on absorption bands for C-H out-of-plane
 vibrations.
 IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
 (spectrum of)
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 48 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1958:55927 CAPLUS
 DN 52:55927
 OREF 52:10091b-h
 TI Bromonitro and related derivatives of dibenzo-p-dioxin
 AU Gilman, Henry; Dietrich, Joseph J.
 CS Iowa State Coll., Ames
 SO Journal of the American Chemical Society (1958), 80, 366-8
 CODEN: JACSAT; ISSN: 0002-7863
 DT Journal
 LA Unavailable
 OS CASREACT 52:55927
 AB 2-Nitrodibenzo-p-dioxin (I) (2 g.), 3.6 g. KBr, 1 g. KBrO3, 5 cc. H2O, and
 50 cc. glacial AcOH refluxed 1.5 hrs., diluted with aqueous NaHSO3, and
 filtered

yielded 0.6 g. 7-Br derivative (II) of I, yellow needles, m. 215-17° (glacial AcOH). 2-Bromodibenzo-p-dioxin (III) (1.5 g.), 2 cc. concentrated HNO₃, and 20 cc. glacial AcOH heated 10 min. at 50-60°, cooled, diluted with H₂O, and filtered gave 0.1 g. II. SnCl₂ (12 g.) in 25 cc. concentrated HCl added slowly to 4.3 g. II in 25 cc. hot glacial AcOH, heated

10

min., basified strongly with aqueous KOH, and filtered yielded 3 g. (crude) 2-NH₂ analog (IV) of II, needles, m. 180-3° (C₆H₆). IV (2 g.) in 25 cc. glacial AcOH diazotized at 18° with 8 cc. nitrosylsulfuric acid, stirred 10 min., added at 5° to CuBr in HBr, heated to 80°, diluted with H₂O, and filtered gave 0.6 g. 7-Br derivative (V) of III, light yellow plates, m. 197-8° (C₆H₆). 2,7-Diaminodibenzo-p-dioxin (VI) (4.5 g.) diazotized in the usual manner, stirred 10 min., and added at 5° to BuBr in HBr yielded 1.2 g. V, m. 195-7°. 2,7-Diacetyldibenzo-p-dioxin (1.7 g.) stirred 18 hrs. at room temperature with 4.2 g. PCl₃ in 150 cc. dry C₆H₆, hydrolyzed, and filtered gave 0.8 g. N N'-di-Ac derivative (VII) of VI, tan needles, m. 254-6° (decomposition)

(aqueous

AcOH). VI (1 g.) and 30 cc. refluxing C₆H₆ treated slowly with 2 g. Ac₂O, refluxed 0.5 hr., cooled, and filtered yielded 1 g. VII, tan needles, m. 356-7° (decomposition) (glacial AcOH). I (2.7 g.), 8 g. Br, and 50 cc. glacial AcOH refluxed 5.5 hrs. with stirring, diluted with aqueous NaHSO₃, and filtered gave a small amount of 3-Br derivative (VIII) of II, yellow crystals, m. 217-20° (glacial AcOH). III (1.3 g.) added slowly to 50 cc.

concentrated HNO₃ with cooling, stirred 10 hrs. at room temperature, diluted with H₂O,

and filtered gave 0.5 g. 3-NO₂ derivative (IX) of II, yellow needles, m.

190-2° (EtOH). Dibenzo-p-dioxin (X) (9.2 g.) added in small portions to 150 cc. concentrated HNO₃ and 100 cc. concentrated H₂SO₄ with

cooling,

warmed during 1 hr. to 90°, cooled, and diluted with H₂O gave 3.1 g.

2,3,7,8-tetranitro derivative (XI) of X, red-brown needles, m. 334-5° (decomposition) (Ac₂O). 2,7-Dinitrodibenzo-p-dioxin (1.7 g.), 50 cc.

concentrated

HNO₃, and 50 cc. fuming HNO₃ warmed to 60° during 2 hrs., diluted with H₂O, and filtered gave 1.9 g. crude XI, m. 330-3° (decomposition).

2,8-di-Br derivative (1.5 g.) of X added slowly at room temperature with

stirring to

50 cc. concentrated HNO₃ and 30 cc. concentrated H₂SO₄, stirred 20 min. at

room temperature,

warmed to 60°, cooled, and diluted with H₂O yielded 1.5 g. (crude)

8-Br derivative of IX, yellow needles, m. 276-8° (glacial AcOH).

2,3-Di-Br derivative (0.5 g.) of X and 10 cc. glacial AcOH treated with

cooling with 5 cc. concentrated HNO₃, heated slowly to reflux, refluxed 0.5

hr.,

and diluted with H₂O yielded 0.3 g. 8-NO₂ derivative of VIII, yellow plates, m. 267-70° (C₆H₆-ligroine, b. 60-70°). 2-NH₂ derivative (XII) (2

g.) of X, 3.6 g. Br, and 100 cc. CCl₄ stirred 2.5 hrs. at room temperature, washed with aqueous NaHSO₃ and aqueous KOH, and evaporated, and the residue

recrystd.

twice from aqueous EtOH yielded 0.8 g. x-Br derivative of XII, pink needles, m. 152-4°.

IT

52354-40-2P, Dibenzo-p-dioxin, 2,3,7,8-tetranitro-

52354-41-3P, Dibenzo-p-dioxin, 2,7-diacetamido-

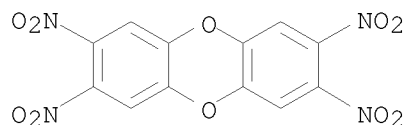
104175-41-9P, Dibenzo-p-dioxin, 2-bromo-3,7-dinitro-

104294-07-7P, Dibenzo-p-dioxin, 2,8-dibromo-3,7-dinitro-

RL: PREP (Preparation)
(preparation of)

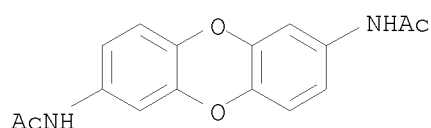
RN 52354-40-2 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetranitro- (CA INDEX NAME)



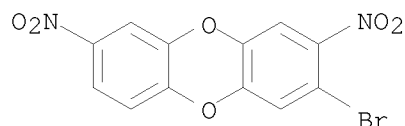
RN 52354-41-3 CAPLUS

CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



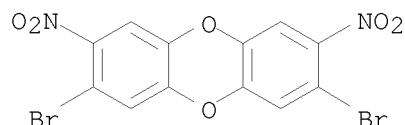
RN 104175-41-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2-bromo-3,7-dinitro- (CA INDEX NAME)



RN 104294-07-7 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,8-dibromo-3,7-dinitro- (CA INDEX NAME)



L6 ANSWER 49 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1953:41674 CAPLUS

DN 47:41674

OREF 47:7028c-f

TI Antibacterial activity of some organic compounds in vitro. VI.
Antibacterial activity of diphenyl ethers and related compounds on
Mycobacterium tuberculosis, Micrococcus pyogenes var. aureus, and
Escherichia coli

AU Tomita, Masao; Watanabe, Waichi

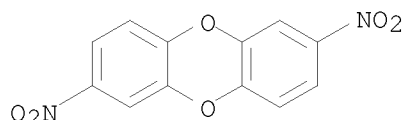
CS Univ. Kyoto

SO Yakugaku Zasshi (1953), 73, 209-11

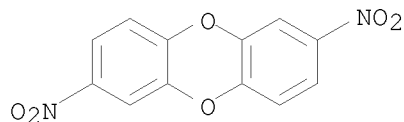
CODEN: YKKZAJ; ISSN: 0031-6903

DT Journal

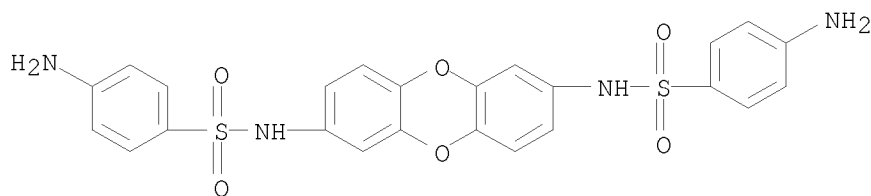
LA Unavailable
 AB Effective dilns. (1000 dilution = 1) to inhibit the growth of *Mycobacterium tuberculosis*, *M. pyogenes* var. *aureus*, and *E. coli*, resp., were tested in the following: 3,6-(NaO)2C6H3OPh, 4, 8, 8; 3,5-(NaO)2C6H3OPh, 16, 8, 4; 6-NaOC6H4OC6H4ONa-4, 8, 8, 8; 6-MeOC6H4OC6H4OMe-3, all <8; 6-MeOC6H4OC6H4OMe-4, <7, <6, <6; (3-MeOC6H4)2O, <8, <7, <7; 3-MeOC6H4OC6H4OMe-4, all <6; 6-MeOC6H4OC6H4OMe-6, <9, <8, <8; 6-NaO2CC6H4OC6H4ONa, <2, <1, <1; 6-NaO2CC6H4OC6H4OMe-6, 1, <1, <1; 5-PhOC9H6N, <18, <14, <14; 7-phenoxy-1,2,3,4-tetrahydroquinoline (I), all <20; 8-PhO analog of I, <22, <12, <12; 1-methyl-8-phenoxy-1,2,3,4-tetrahydroquinoline, all <7; 6,7-dimethoxy-8-(p-phenoxybenzyl)-1,2,3,4-tetrahydroisoquinoline, 8, -, -; (4-ClH2CC6H4)2O, <12, <10, <10; PhOC6H4CH2CONH2-p, 20, 20, <10; 6-HOH2CC6H4C6H4ONa-6, <1, 2, 4; 6-BrH2CC6H4C6H4ONa-6, 1, 4, 4; 6-methoxy-7-hydroxy-1-(p-methoxybenzyl)-1,2,3,4-tetrahydroisoquinoline-HCl, 5, <5, <5; dauricine-HCl, all <1; depsidone, 4, <1, <1; dibenzo- α -pyrone, 20, 20, <10; 6-dibenzopyran, all <10.
 IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
 (bactericidal action of)
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 50 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1953:41673 CAPLUS
 DN 47:41673
 OREF 47:7028b-c
 TI Antibacterial activity of some organic compounds in vitro. V.
 Antibacterial activity of diphenyl ethers and related compounds on
Mycobacterium tuberculosis, *Staphylococcus aureus*, and *Escherichia coli*
 AU Tomita, Masao; Watanabe, Waichi
 CS Univ. Kyoto
 SO Yakugaku Zasshi (1952), 72, 478-82
 CODEN: YKKZAJ; ISSN: 0031-6903
 DT Journal
 LA Unavailable
 AB cf. C.A. 46, 7617h. Several derivs. of Ph2O, diphenylene dioxide (I),
 phenoxthin, Ph2S, and Ph2S2 were tested for antibacterial activity against
M. tuberculosis (II), *Staph. aureus* (III), and *E. coli*. 2,6-(MeCHBrCO)2
 derivative of I, 3,4,6-BzO(Br2)C6H2OPh, 3,4,6-HOBr2C6H2OPh,
 1-(4-phenoxybenzyl)-6,7-methylenedioxy-1,2,3,4-tetrahydroisoquinoline, and
 p-H2NC6H4S2C6H4NH2-p' showed a strong antibacterial action for III; rather
 high antibacterial action against II was shown by 1-C10H7OC10H7-2 and
 (2-C10H7)2O.
 IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
 (bactericidal action of)
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 51 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1951:46927 CAPLUS
 DN 45:46927
 OREF 45:7975e-f
 TI Synthesis of dibenzo-p-dioxin derivatives. XVIII. Synthesis of
 sulfanilamido derivatives
 AU Tomita, Masao; Itoh, Genzo
 CS Univ. Kyoto
 SO Yakugaku Zasshi (1945), 65(No. 7/8A), 10
 CODEN: YKKZAJ; ISSN: 0031-6903
 DT Journal
 LA Unavailable
 AB cf. C.A. 45, 5146a. Saponification of the Ac compds. obtained by the reaction
 of
 p-AcNHC6H4SO2Cl and 2-amino- or 2,7-diaminodibenzo-p-dioxin gave the
 2-sulfanilamido derivative, scaly crystals, m. 224°, and the
 2,7-disulfanilamido derivative, m. over 300°, resp.
 IT 859744-53-9P, Dibenzo-p-dioxin, 2,7-disulfanilamido-
 RL: PREP (Preparation)
 (preparation of)
 RN 859744-53-9 CAPLUS
 CN Dibenzo-p-dioxin, 2,7-disulfanilamido- (5CI) (CA INDEX NAME)



L6 ANSWER 52 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1937:47874 CAPLUS
 DN 31:47874
 OREF 31:6661c-h
 TI The synthesis of diphenylene dioxide derivatives. VI. The nitration of
 diphenylene dioxide
 AU Tomita, Masao
 SO Yakugaku Zasshi (1935), 55(Abstracts), 1060-7;205-8
 From: Chem. Zentr. 1936, I, 2552-3
 CODEN: YKKZAJ; ISSN: 0031-6903
 DT Journal
 LA German
 AB cf. C. A. 31, 3484.5. Of the nitro and amino derivs. of diphenylene
 dioxide (I), the only ones previously known were the 1,3-dinitro derivative,

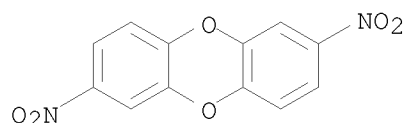
m. 192°, the 1,3-diamino, m. 198-200°, and the latter's di-Ac derivative, m. 253°. By nitration of I under various conditions a mononitro derivative (II), 2 dinitro derivs., m. 190° (III) and 256° (IV), and a trinitro derivative (V) were obtained. When HNO₃ of d. 1.45 in HOAc was used and the mixture cooled with ice large amts. of II and only traces of IV were obtained. Similar treatment at room temps. yielded large amts. of IV and traces of III and V. Gentle warming and the use of HNO₃ of d. 1.38 without the use of HOAc gave III and IV. Warming with HNO₃ of d. 1.45 gave only V. Further nitration of II gave III, IV and V, as nitration of III or IV likewise gave V. Reduction of the nitro compds. with Sn and concentrated HCl gave the amino derivs. Diazotization and boiling of the diamino derivative (from reduction of IV) gave the 2,6-di-HO derivative

of I (anthracene numbering used by author), m. 269°, and previously prepared by other methods (cf. C. A. 28, 3391.6). Thus IV was shown to be the 2,6-dinitro derivative of I, C₁₂H₆O₆N₂, crystals from acetone, m. 256°, and II the 2-nitro deriv of I, C₁₂H₇O₄N, m. 141°. The diamino derivative of I prepared from III and its di-Ac derivative differed from the known 1,3-derivs. mentioned above. Further, the diamino derivative prepared from III did not condense with phenanthrenequinone. These facts and its formation directly from the 2-nitro derivative indicate III to be the 2,7-dinitro derivative of I, C₁₂H₆O₆N₂, yellow needles, m. 190°. The triamino derivative prepared from V gave an azine with phenanthrenequinone and must therefore be the 2,6,7-trinitro derivative of I, C₁₂H₆O₈N₃, light yellow prisms, m. 215-17°. The azine, C₂₆H₁₅O₂N₃, forms microscopic yellow crystals, m. 339°. Data are given for the following addnl. derivs. of I: 2-amino, C₁₂H₉O₂N, crystals from ether, m. 157°, and its HCl salt, C₁₂H₁₀O₂NCl, m. 288° (decomposition); 2,7-diamino, C₁₂H₁₀O₂N₂, m. 178°, and its di-HCl salt, C₁₂H₁₂O₂N₂Cl₂, m. above 300°, and its di-Ac derivative, m. 292°; 2,6-diamino, C₁₂H₁₀O₂N₂, crystals from alc., m. 249°, and its di-HCl salt, C₁₂H₁₂O₂N₂Cl₂, m. above 300°; and 2,6,7-triamino, C₁₂H₁₁O₂N₃, m. 173°. All nitro and amino compds. gave the blue color reaction with H₂SO₄HNO₃.

IT 71400-33-4P, Dibenzo-p-dioxin, 2,7-dinitro- 71400-34-5P,
Dibenzo-p-dioxin, 2,8-dinitro- 71400-35-6P, Dibenzo-p-dioxin-2,7-
diamine 71400-36-7P, Dibenzo-p-dioxin-2,8-diamine
201741-71-1P, Dibenzo-p-dioxin, 2,3,7-trinitro-
854396-37-5P, Dibenzo-p-dioxin-2,3,7-triamine 854396-96-6P
, Dibenzo-p-dioxin-2,8-diamine, N,N'-diacetyl- 854397-57-2P,
Dibenzo-p-dioxin-2,8-diamine, dihydrochloride 854397-58-3P,
Dibenzo-p-dioxin-2,7-diamine, dihydrochloride
RL: PREP (Preparation)
(preparation of)

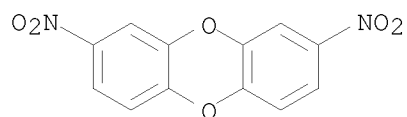
RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



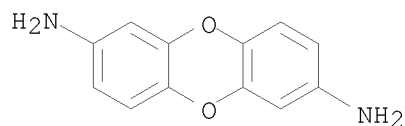
RN 71400-34-5 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



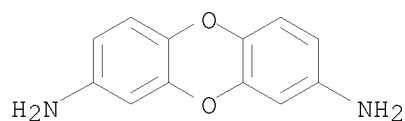
RN 71400-35-6 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



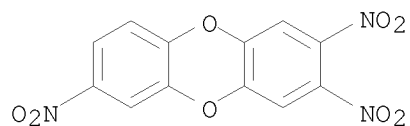
RN 71400-36-7 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,8-diamine (CA INDEX NAME)



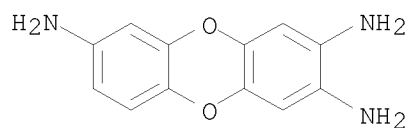
RN 201741-71-1 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,3,7-trinitro- (CA INDEX NAME)



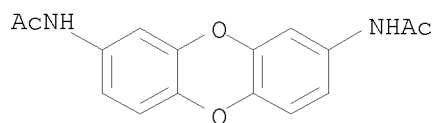
RN 854396-37-5 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,3,7-triamine (CA INDEX NAME)

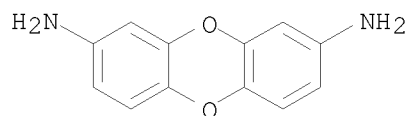


RN 854396-96-6 CAPLUS

CN Dibenzo-p-dioxin-2,8-diamine, N,N'-diacetyl- (4CI) (CA INDEX NAME)

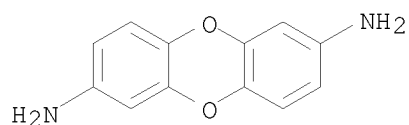


RN 854397-57-2 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,8-diamine, hydrochloride (1:2) (CA INDEX NAME)



● 2 HCl

RN 854397-58-3 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, hydrochloride (1:2) (CA INDEX NAME)



● 2 HCl

=> d 1-39 bib abs hitstr

L6 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2007:150578 CAPLUS
 DN 146:206317
 TI Preparation of heterocyclic compounds and organic electroluminescent device using them
 IN Kai, Takahiro; Yamamoto, Toshihiro; Komori, Masaki; Hotta, Masanori; Sawada, Yuichi
 PA Nippon Steel Chemical Co., Ltd., Japan
 SO PCT Int. Appl., 39pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

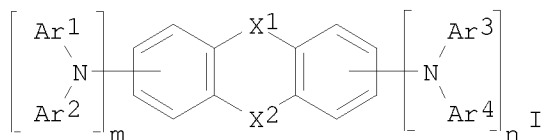
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2007015412	A1	20070208	WO 2006-JP314849	20060727

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

CN 101233127 A 20080730 CN 2006-80028335 20080201
 KR 2008037699 A 20080430 KR 2008-705258 20080303
 PRAI JP 2005-225080 A 20050803
 WO 2006-JP314849 W 20060727
 OS MARPAT 146:206317
 GI



AB Heterocyclic compds. such as benzodioxin and thianthrene derivs., [X1, X2 = O, S, NR; R = H, alkyl, (un)substituted aryl; Ar1, Ar2, Ar3, Ar4 = (un)substituted aryl; or Ar1 and Ar2 may form a nitrogen-containing heterocyclic ring together with the nitrogen atom they are bonded with, and so may Ar3 and Ar4; m, n = an integer of 1 or 2], useful as hole transporting materials, are prepared. An organic electroluminescent device (EL) device containing the compound I in an organic layer is disclosed. This

organic EL

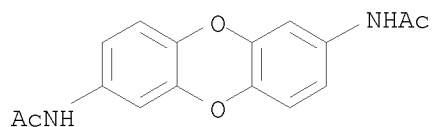
device possesses simple structure which is improved in luminous efficiency and sufficiently secured in driving stability. Thus, a solution of 0.79 g Pd(OAc)₂ in 50 mL xylene was treated with 2.84 g tri(tert-butyl)phosphine and stirred at 80° for 30 min, and the resulting solution was transferred to a heated (80°) solution of 2,7-diaminobenzodioxin 7.54, 2,2'-dibromobiphenyl, 22.0, and sodium tert-butoxide 28.41 g in 500 mL xylene. The resulting mixture was heated to 125° and stirred for 5 h to give, after workup, 25.4% 2,7-bis(9-carbazolyl)dibenzodioxin (II) (4.60 g). An organic EL device with a luminous layer fabricated by vapor codeposition of II and Ir(ppy)₃ (ppy = 2-phenylpyridine) exhibited luminous efficiency of 10 mA/cm², luminance of 2,400 sd/m², visual luminous efficiency of 8.2 lm/W, and luminance half life of 1,500 h.

IT 52354-41-3P, 2,7-Bis(acetylamino)dibenzodioxin 71400-33-4P, 2,7-Dinitrodibenzodioxin 71400-35-6P, 2,7-Diaminodibenzodioxin 862600-33-7P, 2,7-Bis(N-phenyl-N-acetylamino)dibenzodioxin 862600-34-8P, 2,7-Bis(phenylamino)dibenzodioxin 923030-26-6P, 2,7-Bis[N-(3-pyridyl)-N-acetylamino]dibenzodioxin 923030-27-7P, 2,7-Bis[(3-pyridyl)amino]dibenzodioxin
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of heterocyclic compds. and organic

electroluminescent device using them)

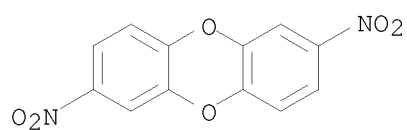
RN 52354-41-3 CAPLUS

CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



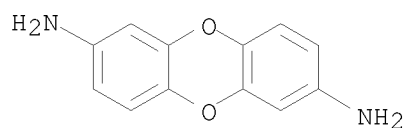
RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



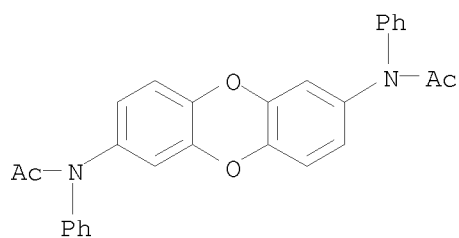
RN 71400-35-6 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



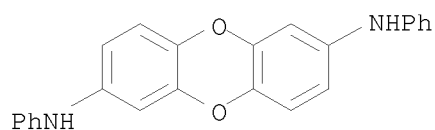
RN 862600-33-7 CAPLUS

CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis[N-phenyl- (CA INDEX NAME)

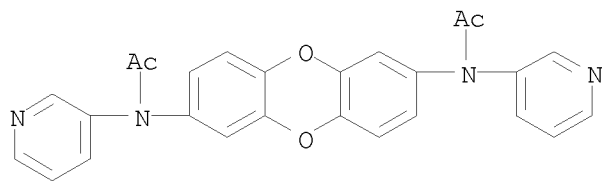


RN 862600-34-8 CAPLUS

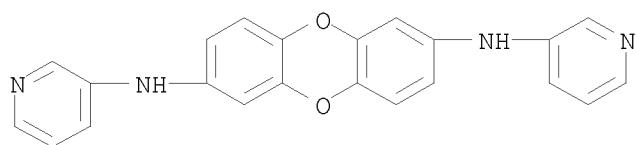
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-diphenyl- (CA INDEX NAME)



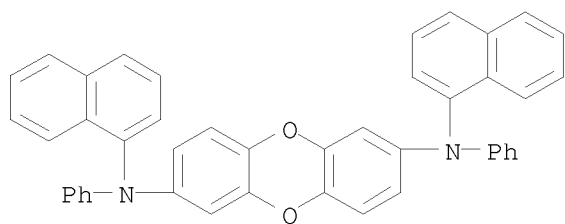
RN 923030-26-6 CAPLUS
 CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis[N-3-pyridinyl- (CA INDEX NAME)



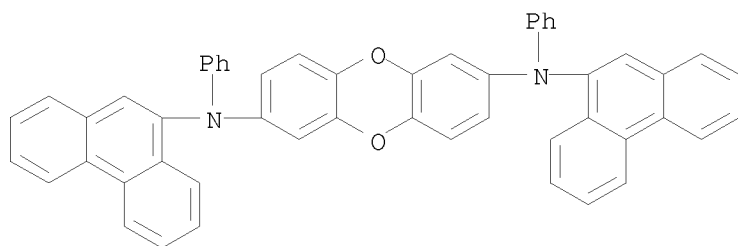
RN 923030-27-7 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-3-pyridinyl- (CA INDEX NAME)



IT 862600-35-9P, 2,7-Bis[N-(1-naphthyl)-N-phenylamino]dibenzodioxin
 862600-36-0P, 2,7-Bis[N-(9-phenanthryl)-N-phenylamino]dibenzodioxin 923030-28-8P, 2,7-Bis(9-carbazolyl)dibenzodioxin 923030-30-2P, 2,7-Bis[N-(biphenyl-3-yl)-N-phenylamino]dibenzodioxin 923030-31-3P, 2,7-Bis[N-(biphenyl-3-yl)-N-(3-pyridyl)amino]dibenzodioxin
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of heterocyclic compds. and organic electroluminescent device using them)
 RN 862600-35-9 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)

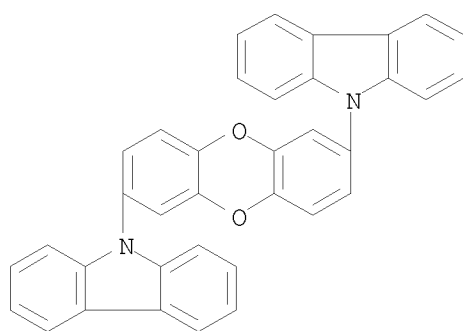


RN 862600-36-0 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)



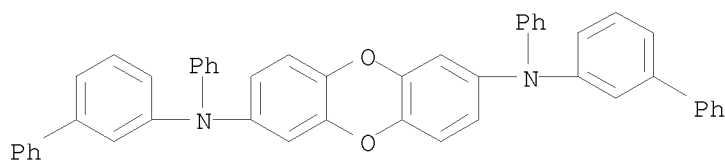
RN 923030-28-8 CAPLUS

CN 9H-Carbazole, 9,9'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



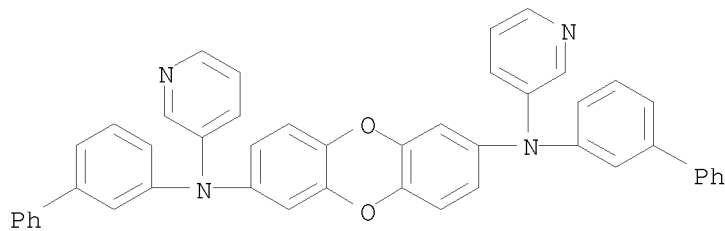
RN 923030-30-2 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-diphenyl- (CA INDEX NAME)



RN 923030-31-3 CAPLUS

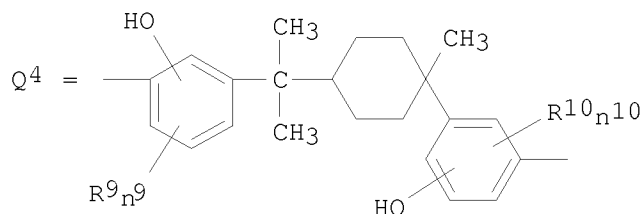
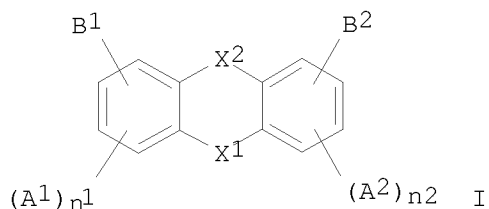
CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-bis([1,1'-biphenyl]-3-yl)-N2,N7-di-3-pyridinyl- (CA INDEX NAME)



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:1147284 CAPLUS
DN 145:480098
TI Organic electroluminescent device, display and illuminating device
IN Sugita, Shuichi; Tanaka, Tatsuo
PA Konica Minolta Holdings, Inc., Japan
SO PCT Int. Appl., 58pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2006114966	A1	20061102	WO 2006-JP306079	20060327
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	GB 2439030	A	20071212	GB 2007-19650	20060327
PRAI	JP 2005-119503	A	20050418		
	WO 2006-JP306079	W	20060327		
OS	MARPAT 145:480098				
GI					



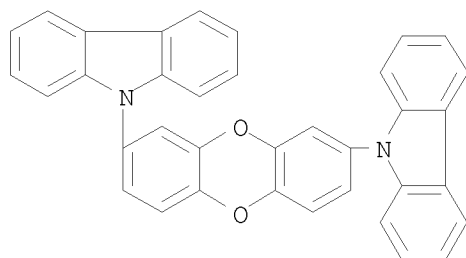
AB The disclosed organic electroluminescent device is characterized in that it comprises a constituent layer including at least a phosphorescent light-emitting layer between a pair of electrodes, and at least one layer in the constituent layer contains a compound represented by the following general formula I (A1, A2 = substituents; n1, n2 = 0-3; X1, X2 = O, S, alkylene, NH, CO, SO, SO2; B1, B2 = Q; Z1, Z2 = aromatic heterocycle, aromatic hydrocarbon ring; Z3 = bond, divalent linking group). Also disclosed are a display and an illuminating device. The organic electroluminescent device has high emission luminance, high external quantum efficiency and long life.

IT 913737-91-4 913737-92-5

RL: MOA (Modifier or additive use); USES (Uses)
(organic electroluminescent devices containing)

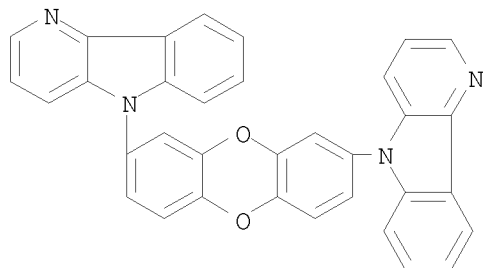
RN 913737-91-4 CAPLUS

CN 9H-Carbazole, 9,9'-dibenzo[b,e][1,4]dioxin-2,8-diylbis- (9CI) (CA INDEX NAME)



RN 913737-92-5 CAPLUS

CN 5H-Pyrido[3,2-b]indole, 5,5'-dibenzo[b,e][1,4]dioxin-2,8-diylbis- (9CI)
(CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:214675 CAPLUS

DN 146:81990

TI Modular main-chain organometallic polymers based on N-heterocyclic carbene-metal centers

AU Boydston, Andrew J.; Bielawski, Christopher W.

CS Department of Chemistry and Biochemistry, University of Texas at Austin,
Austin, TX, 78712, USA

SO Polymer Preprints (American Chemical Society, Division of Polymer
Chemistry) (2006), 47(1), 177-178
CODEN: ACPPAY; ISSN: 0032-3934

PB American Chemical Society, Division of Polymer Chemistry

DT Journal; (computer optical disk)

LA English

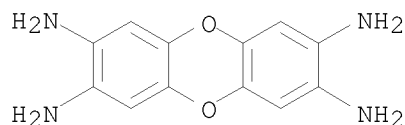
OS CASREACT 146:81990

AB Palladium and platinum polymeric bis-N-heterocyclic carbene complexes were
prepared by metalation of benzo-, biphenyl- and dibenzodioxin-condensed
bis-imidazolium salts. Condensation of Q(NH₂)₄ with HCO₂H with subsequent
alkylation by RBr afforded bis-imidazolium salts
[(N+R:CHNR)Q(N+R:CHNR)]Br₂ (2; Q = 1,2,4,5-benzenetetrayl,
1,1'-biphenyl-3,3',4,4'-tetrayl, [1,4]dibenzodioxin-2,3,7,8-tetrayl; R =
Bu, PhCH₂). Reaction of compds. 2 with Pd(OAc)₂ or PtCl₂ in DMSO at
110° gave the corresponding polymeric complexes with metal centers
in main chain, [X₂M:CN₂R₂QN₂R₂C:]_n (3a-h, same Q, R, M). The chain length
of 3a-h may be controlled by copolymn. of ligands 2 with MX₂ and
chain-transfer agents, e.g., 1,3-dibenzylbenzimidazolium bromide.
2-Hydroxyphenyl-substituted benzobis-imidazolium cations gave chelate
C,O,C',O'-phenolato bis-carbene polymeric complexes with copper(II),
nickel(II) and iron(II) centers.

IT 34294-67-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of bis-imidazolium precursors and carbene-terminated transition
metal polymeric bis-N-heterocyclic carbene complexes)

RN 34294-67-2 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (CA INDEX NAME)



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:921130 CAPLUS

DN 143:387483

TI A Modular Approach to Main-Chain Organometallic Polymers

AU Boydston, Andrew J.; Williams, Kyle A.; Bielawski, Christopher W.

CS Department of Chemistry and Biochemistry, The University of Texas at
Austin, Austin, TX, 78712, USA

SO Journal of the American Chemical Society (2005), 127(36), 12496-12497
CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

OS CASREACT 143:387483

AB A highly efficient route to a new class of organometallic polymers containing
difunctional N-heterocyclic carbenes has been developed. Bis(imidazolium)
halides and divalent group X metals were copolymd. to afford

organometallic polymers in up to quant. yields and with mol. wts. up to 106 Da, depending on the structure of the N-heterocyclic carbene and the incorporated transition metal. Enhanced solubilities were demonstrated through post-polymerization ligation with phosphines. Finally, selective end-group functionalization and excellent mol. weight control was achieved through the inclusion of monofunctional chain transfer agents during the polymerization

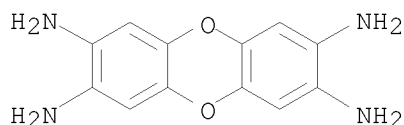
IT 16435-75-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation and mol. weight of main-chain organometallic polymers by modular approach)

RN 16435-75-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine, tetrahydrochloride (9CI) (CA INDEX NAME)



● 4 HCl

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:823683 CAPLUS

DN 143:238789

TI Aminodibenzodioxin derivative and organic electroluminescent device using same

IN Kai, Takahiro; Sekiya, Hirokatsu; Miyazaki, Hiroshi; Ishikawa, Shigetaka

PA Nippon Steel Chemical Co., Ltd., Japan

SO PCT Int. Appl., 32 pp.

CODEN: PIXXD2

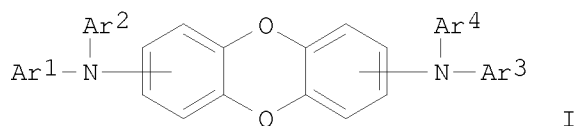
DT Patent

LA Japanese

FAN.CNT 1

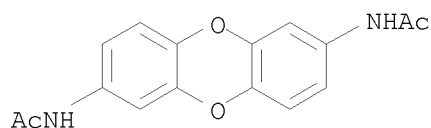
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005075451	A1	20050818	WO 2005-JP1079	20050127
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	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,			

MR, NE, SN, TD, TG
 CN 1918141 A 20070221 CN 2005-80004456 20050127
 US 20070129555 A1 20070607 US 2006-588373 20060802
 PRAI JP 2004-32380 A 20040209
 WO 2005-JP1079 W 20050127
 OS MARPAT 143:238789
 GI

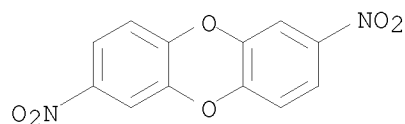


AB Disclosed is a highly reliable material for organic electroluminescent devices which has high luminance and high luminous efficiency, hardly deteriorates in emission, and is excellent in use and storage at high temps. Also disclosed is an organic electroluminescent device using such a material. The material for organic electroluminescent devices is a diaminodibenzodioxin derivative represented by the general formula I, and it can be included in a light-emitting layer, hole transport layer or hole injection layer of an organic electroluminescent device. In the formula, Ar1, Ar2, Ar3 and Ar4 resp. represent a substituted or unsubstituted aryl group. Incidentally, Ar1 and Ar2 as well as Ar3 and Ar4 may form a nitrogen-containing heterocyclic ring together with a nitrogen bonded thereto.

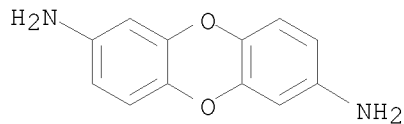
IT 52354-41-3P 71400-33-4P 71400-35-6P,
 Dibenzo[b,e][1,4]dioxin-2,7-diamine 862600-33-7P
 862600-34-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (aminodibenzodioxin derivative for organic electroluminescent device)
 RN 52354-41-3 CAPLUS
 CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



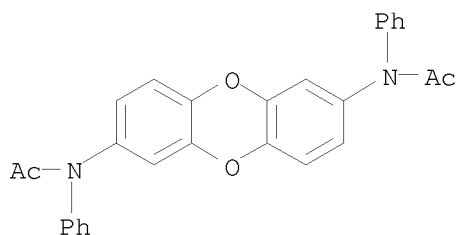
RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



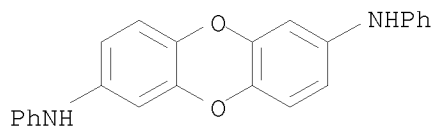
RN 71400-35-6 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



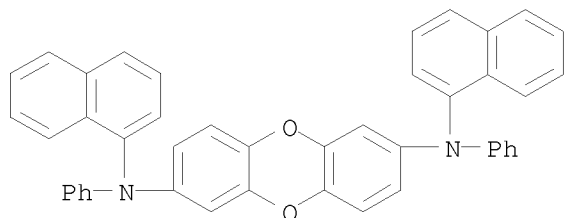
RN 862600-33-7 CAPLUS
 CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis[N-phenyl- (CA INDEX NAME)



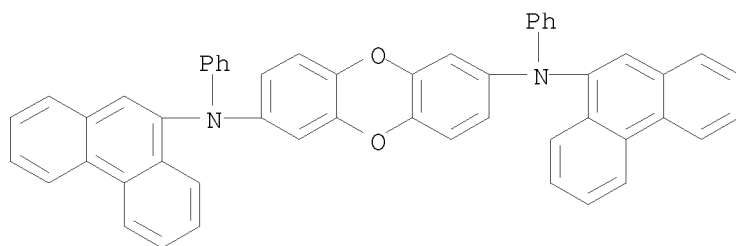
RN 862600-34-8 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-diphenyl- (CA INDEX NAME)



IT 862600-35-9P 862600-36-0P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (aminodibenzodioxin derivative for organic electroluminescent device)
 RN 862600-35-9 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-1-naphthalenyl-N2,N7-diphenyl- (CA INDEX NAME)

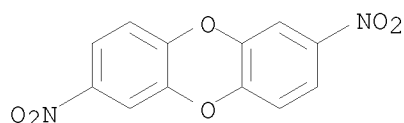


RN 862600-36-0 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, N2,N7-di-9-phenanthrenyl-N2,N7-diphenyl- (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:205949 CAPLUS
DN 142:56201
TI Product class 2: 1,4-dioxins and benzo- and dibenzo-fused derivatives
AU Matsumoto, M.
CS Germany
SO Science of Synthesis (2004), 16, 15-38
CODEN: SSCYJ9
PB Georg Thieme Verlag
DT Journal; General Review
LA English
AB A review. Methods for preparing dioxin, benzodioxin and dibenzo-fused
derivs. are reviewed including cyclization, aromatization, and substituent
modification.
IT 71400-33-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of dioxin, benzodioxin and dibenzo-fused derivs. via
cyclization, aromatization, and substituent modification)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



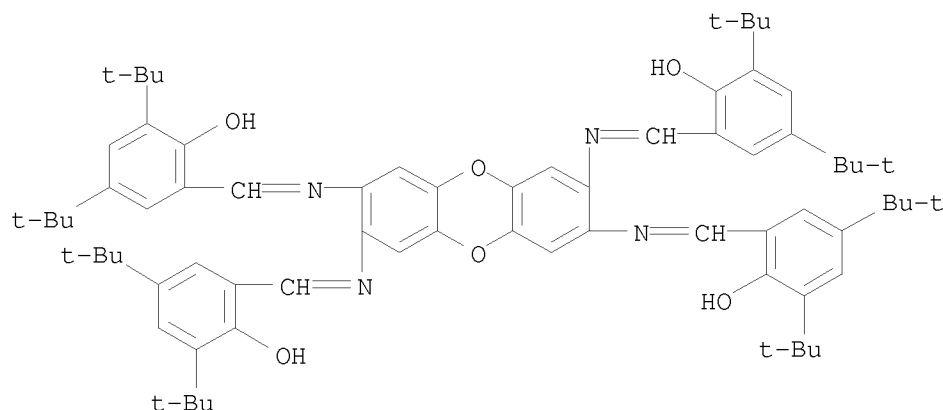
RE.CNT 87 THERE ARE 87 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:100248 CAPLUS
DN 136:318347
TI The construction of (salophen)ruthenium(II) assemblies using axial
coordination
AU Chichak, Kelly; Jacquemard, Ulrich; Branda, Neil R.
CS Department of Chemistry, University of Alberta, Edmonton, AB, T6G 2G2,
Can.
SO European Journal of Inorganic Chemistry (2002), (2), 357-368
CODEN: EJICFO; ISSN: 1434-1948
PB Wiley-VCH Verlag GmbH

DT Journal
 LA English
 OS CASREACT 136:318347
 AB Mononuclear and binuclear carbonylruthenium(II) complexes with N2O2 Schiff base ligands based on 3,5-di-tert-butylsalicylaldehyde and three different ortho-diamines were prepared. The mononuclear Ru(BSP)(CO) [BSP = N,N'-bis(3,5-di-tert-butylsalicylidene)-1,2-phenylenediamine] complex (4) acts as a versatile supramol. synthon, as illustrated by the fact that it spontaneously forms linear and three-dimensional assemblies through axial coordination with pyridyl Lewis bases. Using this motif, neutral and charged assemblies with bipyridine (6), pyridylterpyridine (9) and quaterpyridine (12) were prepared. The versatility of the salophen ligand was highlighted by the preparation of bimetallic carbonylruthenium(II) compds. 14-17 from 1,2,4,5-tetraaminobenzene and 2,3,7,8-tetraaminodibenzo-[1,4]dioxin. The bimetallic complexes were isolated as a mixture of cis and trans diastereomers with respect to the spatial relation between the two axially bound carbon monoxide ligands. The electronic spectral and electrochem. properties of the pyridyl adducts 5, 15, and 17 were compared. The properties of 17 closely resembled 5 due to the insulating effect of the extended central tetraamino fragment, while 15 behaved as a single, novel chromophore. The electrochem. studies revealed that the central tetraamino linker regulates the communication between the two metal centers of 15 and 17. The two metal atoms of 15 sense each other to a larger extent than those of 17.

IT 410525-84-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reactant for preparation of nickel and ruthenium tetrakis(salicylidene)tetraaminodibenzodioxin dinuclear complexes)

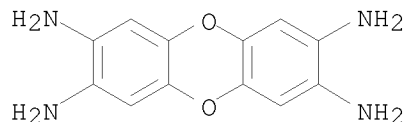
RN 410525-84-7 CAPLUS
 CN Phenol, 2,2',2'',2'''-[dibenzo[b,e][1,4]dioxin-2,3,7,8-tetrayltetrakis(nitrilomethylidyne)]tetrakis[4,6-bis(1,1-dimethylethyl)-(9CI) (CA INDEX NAME)



IT 16435-75-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant for preparation of tetrakis(salicylidene)tetraaminodibenzodioxin and its ruthenium and nickel dinuclear complexes)

RN 16435-75-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine, tetrahydrochloride (9CI) (CA INDEX NAME)



● 4 HCl

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:113925 CAPLUS

DN 130:182902

TI Thianthrene polymers for application in optical devices, particularly in electroluminescence elements, and their manufacture

IN Janietz, Silvia; Wedel, Armin; Friedrich, Reiner

PA Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung e.V., Germany

SO Ger. Offen., 17 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19733882	A1	19990211	DE 1997-19733882	19970805
	DE 19733882	C2	20021114		
PRAI	DE 1997-19733882		19970805		

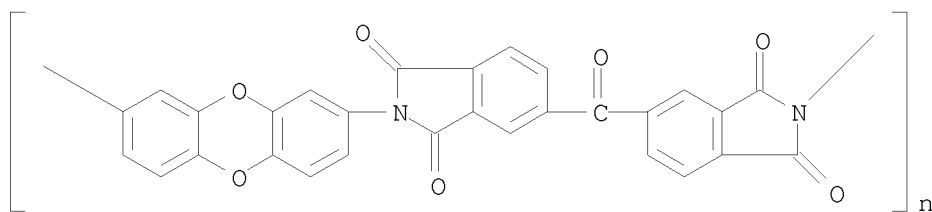
AB The polymers have thianthrenediyl units alternating with certain other specified types of repeating units. Thus, equimolar amts. of 2,5-dihexyl-1,4-benzenediboronic acid and dibromothianthrene were heated in refluxing toluene containing Na₂CO₃ and Pd(PPh₃)₄ for 120 h to give a polymer with weight-average mol. weight 1.7 + 104.

IT 71402-46-5P, 2,7-Diaminothianthrene-pyromellitic dianhydride copolymer, SRU

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(thianthrene polymers for electroluminescent elements)

RN 71402-46-5 CAPLUS

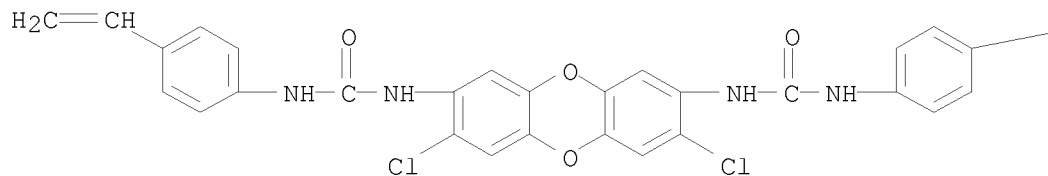
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA INDEX NAME)



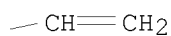
L6 ANSWER 9 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1998:814063 CAPLUS
 DN 130:139842
 TI A Novel Approach to the Molecular Imprinting of Polychlorinated Aromatic Compounds
 AU Luebke, Markus; Whitcombe, Michael J.; Vulfson, Evgeny N.
 CS FMS Department, Institute of Food Research, Reading Berkshire, RG6 6BZ, UK
 SO Journal of the American Chemical Society (1998), 120(51), 13342-13348
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 AB The aim of this investigation was to determine whether relatively weak interactions, such as hydrogen bonds to aromatic chlorine atoms and interactions involving aromatic π electrons could be exploited within artificial receptors, constructed using the technique of mol. imprinting. For the purposes of this investigation we chose 2,3,7,8-tetrachlorodibenzodioxin (TCDD) as the model target. Imprinted polymers have been prepared with two new templates designed to create recognition sites for TCDD. The first of these, the bis-N-(4-vinylphenyl)urea derivative of 2,8-dichloro-3,7-diaminodibenzodioxin, employed a carbonyl spacer to introduce aromatic amines into the polymer after reductive cleavage of the template. The second, N-(2-(3,7,8-trichlorodibenzodioxinyl))-2-methacryloyloxybenzamide, incorporated a salicylic acid spacer and introduced a methacrylic acid residue into the polymer following hydrolysis. Both amine and acid groups were positioned in such a way as to interact with TCDD through the formation of weak hydrogen bonds to aromatic chlorine atoms. A second recognition element was introduced into the binding sites by the inclusion of a polymerizable, electron-rich, aromatic ether capable of forming π - π interactions with the electron-deficient dioxin mol. Polymers imprinted with either template showed significantly higher uptake of TCDD than the corresponding nonimprinted controls, even at concns. as low as 2 nM.
 IT 219950-97-7DP, hydrolyzed
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (crosslinked diurea template polymer; novel approach to mol. imprinting of polychlorinated aromatic compds.)
 RN 219950-97-7 CAPLUS
 CN Urea, N,N''-(3,7-dichlorodibenzo[b,e][1,4]-dioxin-2,8-diyl)bis[N'-(4-ethenylphenyl)-, polymer with diethenylbenzene (9CI) (CA INDEX NAME)
 CM 1
 CRN 219950-93-3

CMF C30 H22 Cl2 N4 O4

PAGE 1-A



PAGE 1-B

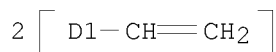


CM 2

CRN 1321-74-0

CMF C10 H10

CCI IDS



IT 219950-99-9DP, hydrolyzed 220006-71-3DP, hydrolyzed
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (imprinted polymers; novel approach to mol. imprinting of polychlorinated aromatic compds.)

RN 219950-99-9 CAPLUS

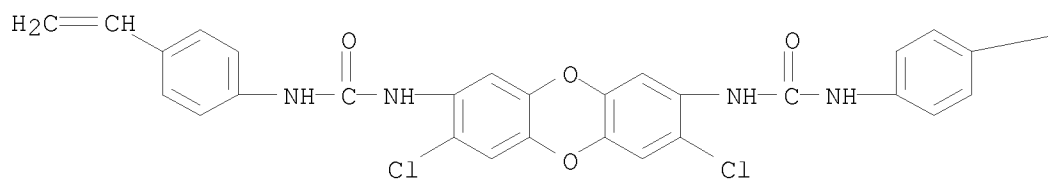
CN Urea, N,N''-(3,7-dichlorodibenzo[b,e][1,4]dioxin-2,8-diyl)bis[N'-(4-ethenylphenyl)-, polymer with diethenylbenzene and ethenylpentafluorobenzene (9CI) (CA INDEX NAME)

CM 1

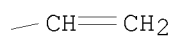
CRN 219950-93-3

CMF C30 H22 Cl2 N4 O4

PAGE 1-A



PAGE 1-B

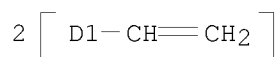


CM 2

CRN 1321-74-0

CMF C10 H10

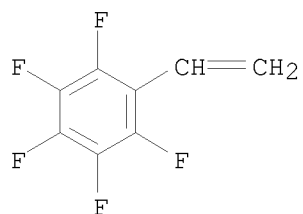
CCI IDS



CM 3

CRN 653-34-9

CMF C8 H3 F5



RN 220006-71-3 CAPLUS

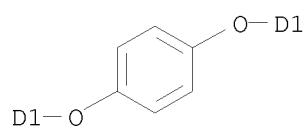
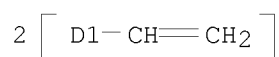
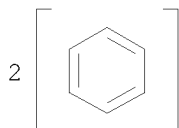
CN Urea, N,N''-(3,7-dichlorodibenzo[b,e][1,4]dioxin-2,8-diyl)bis[N'-(4-ethenylphenyl)-, polymer with 1,4-bis(ethenylphenoxy)benzene and diethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 220006-68-8

CMF C22 H18 O2

CCI IDS

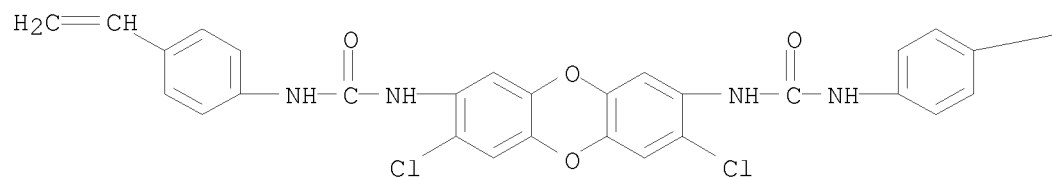


CM 2

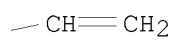
CRN 219950-93-3

CMF C30 H22 Cl2 N4 O4

PAGE 1-A



PAGE 1-B

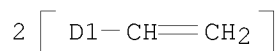


CM 3

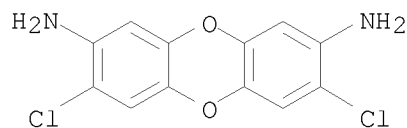
CRN 1321-74-0

CMF C10 H10

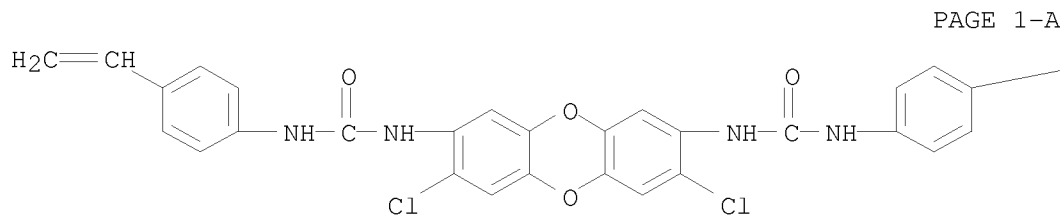
CCI IDS



IT 219950-91-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (starting material; novel approach to mol. imprinting of
 polychlorinated aromatic compds.)
 RN 219950-91-1 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,8-diamine, 3,7-dichloro- (CA INDEX NAME)

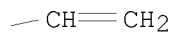


IT 219950-93-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (template; novel approach to mol. imprinting of polychlorinated aromatic
 compds.)
 RN 219950-93-3 CAPLUS
 CN Urea, N,N'-(3,7-dichlorodibenzo[b,e][1,4]dioxin-2,8-diyl)bis[N'-(4-
 ethenylphenyl)- (9CI) (CA INDEX NAME)



PAGE 1-A

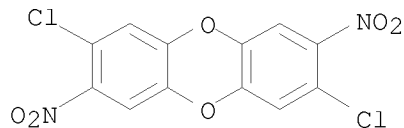
PAGE 1-B



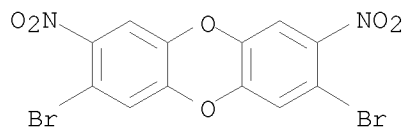
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:400788 CAPLUS

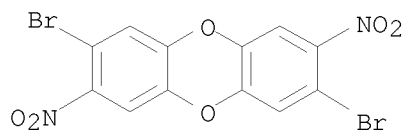
DN 123:9396
 OREF 123:1975a,1978a
 TI Dibenzo-p-dioxins. II. Electrophilic substitution reactions
 AU K7ntsevich, A. D.; Golovkov, V. F.; Ivanov, K. N.; Chernov, S. A.
 CS Tsent. Ekotoksimetrii, Ross. Akad. Nauk, Moscow, Russia
 SO Zhurnal Obshchei Khimii (1994), 64(10), 1722-8
 CODEN: ZOKHA4; ISSN: 0044-460X
 PB Nauka
 DT Journal
 LA Russian
 AB Electrophilic nitration, acylation, sulfonation, and chlorosulfonation of halogenated dibenzo-p-dioxins were studied.
 IT 71721-79-4P 104294-07-7P 163557-93-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 71721-79-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dichloro-3,8-dinitro- (CA INDEX NAME)



RN 104294-07-7 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,8-dibromo-3,7-dinitro- (CA INDEX NAME)

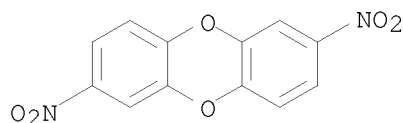


RN 163557-93-5 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dibromo-3,8-dinitro- (CA INDEX NAME)

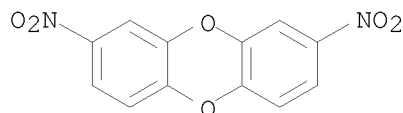


L6 ANSWER 11 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1994:263496 CAPLUS
 DN 120:263496
 OREF 120:46497a,46500a
 TI Mutagenicity and metabolic activation of nitrodibenzofurans and nitrodibenzo-p-dioxins
 AU Watanabe, T.; Kaji, H.; Kasai, T.; Hirayama, T.
 CS Kyoto Pharm. Univ., Kyoto, 607, Japan

SO Hen'igensei Shiken (1993), 2(4), 226-33
 CODEN: HESHEI; ISSN: 0917-5768
 DT Journal
 LA Japanese
 AB Nitrated dibenzofurans (NDFs) and dibenzo-p-dioxins (NDDs) were tested for their mutagenicity by using Salmonella tester strains with or without S9 mix which was prepared from rats pretreated with inducers or untreated rats. The order of mutagenic activity of NDFs and NDDs in strain TA98 was 2,7- = 2,8- > 3- > 2- > 4- > 1-NDF and 2,7- > 2,8- > 2-NDD without S9 mix. In the presence of S9 mix, both NDFs and NDDs exhibited mutagenic potency in strain TA98NR and the most potent effects were observed with the S9 mix which was prepared from rats pretreated with 3-methylcholanthrene (3-MC). The mutagenic potency of 2-, 4-, 2,7-, and 2,8-NDF in strain TA98NR with 3-MC-S9 mix was nearly equal or 2-10 times higher than those in strain TA98 without S9 mix.
 IT 71400-33-4, 2,7-Dinitrodibenzo-p-dioxin 71400-34-5, 2,8-Dinitrodibenzo-p-dioxin
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (mutagenicity of, in Ames test, metabolic activation effect on)
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



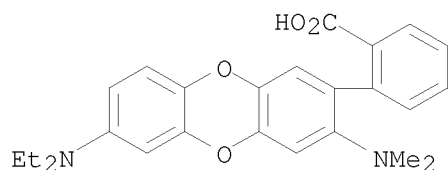
RN 71400-34-5 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



L6 ANSWER 12 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1994:65544 CAPLUS
 DN 120:65544
 OREF 120:11657a,11660a
 TI Organic thin-film electroluminescent device
 IN Utsuki, Koji; Nagahata, Emi
 PA Nippon Electric Co, Japan
 SO Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 05078655	A	19930330	JP 1990-340900	19901130
	JP 3005909	B2	20000207		

PRAI JP 1989-318797 A1 19891211
 JP 1989-331066 A1 19891222
 JP 1990-160117 A1 19900619
 JP 1990-279183 A1 19901019
 JP 1990-306556 A1 19901113
 OS MARPAT 120:65544
 AB The device comprises: a phosphor comprising a pyrene, a coumarin, a cyanine, a xanthene, and/or a pyrylium derivative; and an electron-transport layer containing a tert. diamine, a phthalocyanine, a naphthalimide, a quinolynol metal complex, a stylyl, a diphenoquinone, and/or a 3,9-perylenedicarboxylic acid ester derivative 16 Markush structures are claimed.
 IT 152264-15-8
 RL: PRP (Properties)
 (electron transporters from, in electroluminescent devices)
 RN 152264-15-8 CAPLUS
 CN Benzoic acid, 2-[7-(diethylamino)-3-(dimethylamino)dibenzo[b,e][1,4]dioxin-2-yl]-, hydrochloride (1:1) (CA INDEX NAME)



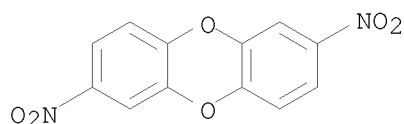
● HCl

L6 ANSWER 13 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1992:464583 CAPLUS
 DN 117:64583
 OREF 117:11243a,11246a
 TI Mutagenicity of the reaction products of dibenzo-p-dioxin with nitrogen oxides
 AU Watanabe, Tetsushi; Kusumoto, Masanori; Ikeda, Miho; Hirayama, Teruhisa
 CS Kyoto Pharm. Univ., Kyoto, 607, Japan
 SO Mutation Research Letters (1992), 281(4), 247-54
 CODEN: MRLEDH; ISSN: 0165-7992
 DT Journal
 LA English
 AB Dibenzo-p-dioxin (DD) was made to react with various concns. of nitrogen oxides in the dark. The mutagenicities of the reaction products were tested using Salmonella typhimurium strains TA98, TA100, TA98NR and TA98/1,8-DNP6 in the presence or absence of a mammalian metabolic activation system (S9 mix). DD-NOx (molar ratios 1:3, 1:6 and 1:18) reaction products exhibited mutagenic potency in strains TA98 and TA98/1,8-DNP6 without S9 mix. In a gas chromatog./mass spectrometry study, 2-nitrodibenzo-p-dioxin (NDD) was identified with authentic sample in the mutagenic reaction products. DD-NOx (1:18) reaction products were reduced by NaSH and the reduction mixture was analyzed by HPLC. 2,7-Dinitrodibenzo-p-dioxin (DNDD) and 2,8-DNDD were identified as

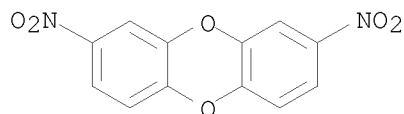
corresponding diamino-DDs in the reduction mixture 2-NDD, 2,7-DNDD and 2,8-DNDD were also mutagenic in strains TA98 and TA98/1,8-DNP6 without S9 mix and the mutagenicity of DD-NO_x reaction products were largely accounted for by the nitro-DDs.

IT 71400-33-4P 71400-34-5P, 2,8-Dinitro-dibenzo-p-dioxin
 RL: ADV (Adverse effect, including toxicity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation and mutagenicity of)

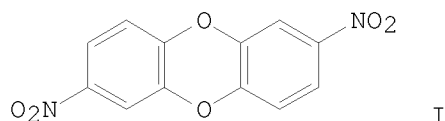
RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



RN 71400-34-5 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



L6 ANSWER 14 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1985:405771 CAPLUS
 DN 103:5771
 OREF 103:1039a,1042a
 TI Nitronium cation as electron acceptor in the reaction of 2,7-dinitrodibenzo-1,4-dioxin with nitric acid
 AU Morkovnik, A. S.
 CS Rostov. Gos. Univ., Rostov, 344090, USSR
 SO Khimiya Geterotsiklicheskikh Soedinenii (1985), (2), 274-5
 CODEN: KGSSAQ; ISSN: 0453-8234
 DT Journal
 LA Russian
 GI



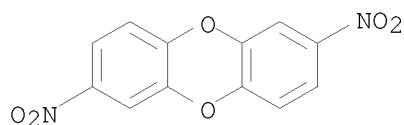
AB The reaction of the title compound (I) with NO₂⁺ in H₂SO₄ gave the cation radical of I and NO₂•, which reacted with H⁺ to form NO₂⁺, NO⁺, and H₂O.

IT 71400-33-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nitronium ion)

RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 15 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1985:62158 CAPLUS

DN 102:62158

OREF 102:9749a,9752a

TI Nitrations of acylamino- and nitrodibenzo-p-dioxins

AU Oliver, James E.

CS Pest. Degrad. Lab., Agric. Environ. Qual. Inst., Beltsville, MD, 20705, USA

SO Journal of Heterocyclic Chemistry (1984), 21(4), 1073-80

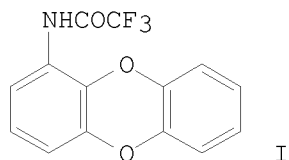
CODEN: JHTCAD; ISSN: 0022-152X

DT Journal

LA English

OS CASREACT 102:62158

GI



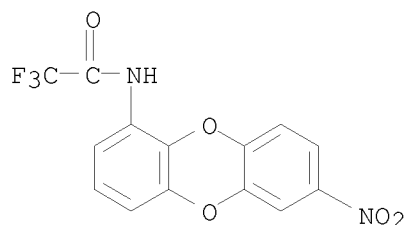
AB Nitrations of 1- or 2-acylamino (and nitro) dibenzo-p-dioxins were employed to achieve regioselective further functionalization of these compds. The choice of nitrating conditions and/or acyl substituent (CH3CO vs. CF3CO) often dictated into which ring the first nitro group was directed. In almost all cases, nitrations at the 2,3,7,8-positions were highly favored over nitrations at the 1,4,6,9-positions; with NH4NO3/CF3CO2H in THF, however, nitration of 1-(trifluoroacetyl)amino)dibenzo-p-dioxin (I) proceeded predominantly at the 4-position.

IT 94514-55-3P 94514-56-4P

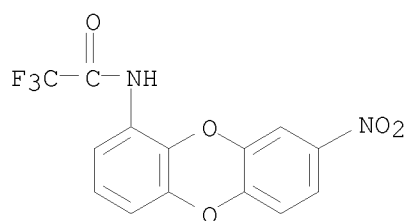
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 94514-55-3 CAPLUS

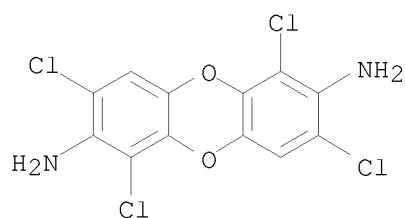
CN Acetamide, 2,2,2-trifluoro-N-(7-nitrodibenzo[b,e][1,4]dioxin-1-yl)- (CA INDEX NAME)



RN 94514-56-4 CAPLUS
 CN Acetamide, 2,2,2-trifluoro-N-(8-nitrodibenzo[b,e][1,4]dioxin-1-yl)- (CA INDEX NAME)

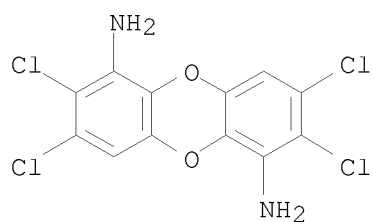


L6 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1984:139046 CAPLUS
 DN 100:139046
 OREF 100:21219a,21222a
 TI Nitration of two TCDD's and their conversion to 1,2,3,6,7,8-HCDD
 AU Oliver, James E.; Ruth, John M.
 CS Pesticide Degradation Lab., USDA, Beltsville, MD, 20705, USA
 SO Chemosphere (1983), 12(11-12), 1497-503
 CODEN: CSMHAF; ISSN: 0045-6535
 DT Journal
 LA English
 OS CASREACT 100:139046
 AB Two regioselective synthetic routes to 1,2,3,6,7,8-hexachlorodibenzo-p-dioxin have been developed. They consist of dinitration of 1,3,6,8- and 2,3,7,8-tetrachlorodibenzo-p-dioxin resp. followed by reduction and a Sandmeyer reaction.
 IT 89422-75-3P 89422-76-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and Sandmeyer reaction of)
 RN 89422-75-3 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 1,3,6,8-tetrachloro- (CA INDEX NAME)



RN 89422-76-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-1,6-diamine, 2,3,7,8-tetrachloro- (CA INDEX NAME)

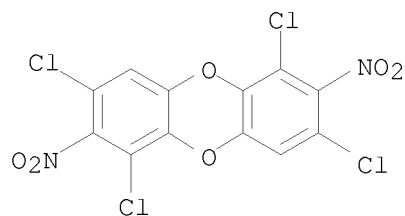


IT 89422-73-1P 89422-74-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reduction of)

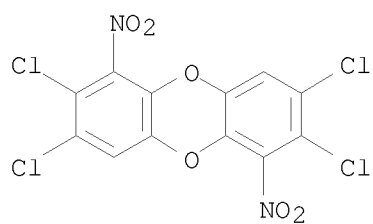
RN 89422-73-1 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 1,3,6,8-tetrachloro-2,7-dinitro- (CA INDEX NAME)

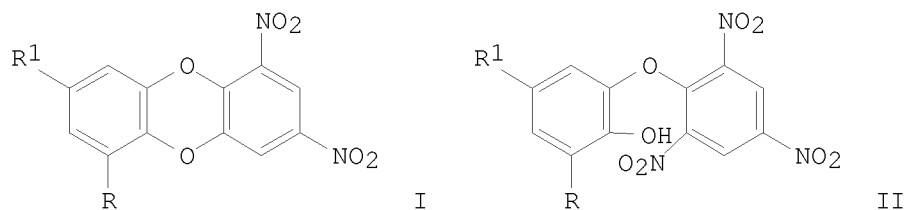


RN 89422-74-2 CAPLUS

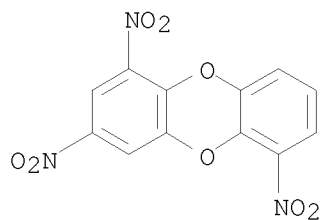
CN Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-1,6-dinitro- (CA INDEX NAME)



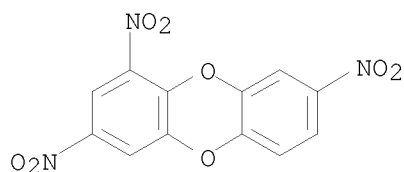
L6 ANSWER 17 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1983:198122 CAPLUS
 DN 98:198122
 OREF 98:30115a,30118a
 TI X-ray diffraction study of the structure of trinitrodibenzo-p-dioxins,
 formed during cyclization of monopicryl ethers of isomeric
 nitropyrocatechols
 AU Yufit, D. S.; Struchkov, Yu. T.; Knyazev, V. N.; Mozhaeva, T. Ya.; Drozd,
 V. N.
 CS Inst. Elementoorg. Soedin., Moscow, USSR
 SO Zhurnal Obshchei Khimii (1983), 53(2), 451-5
 CODEN: ZOKHA4; ISSN: 0044-460X
 DT Journal
 LA Russian
 GI



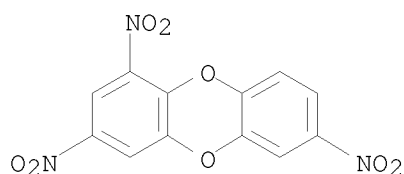
AB The geometry of dibenzo-p-dioxins I (R = NO₂, R₁ = H; R = H, R₁ = NO₂),
 formed by intramol. cyclocondensation of II, was confirmed by x-ray
 diffraction data on bond lengths and bond angles.
 IT 83429-19-0P 83429-20-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and x-ray diffraction studies of)
 RN 83429-19-0 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 1,3,6-trinitro- (CA INDEX NAME)



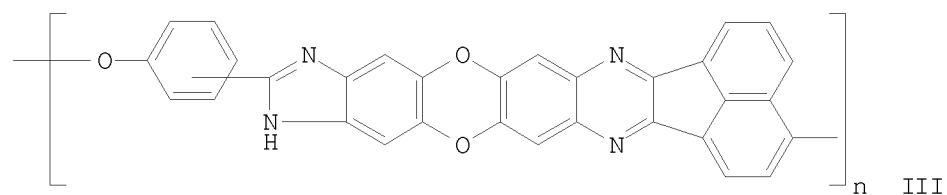
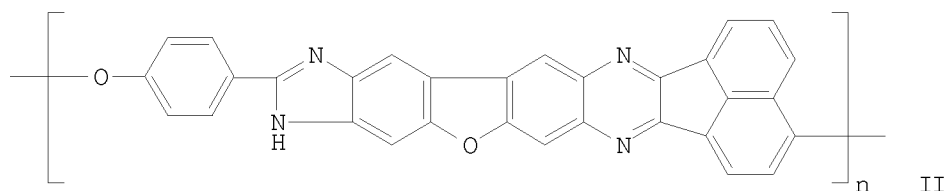
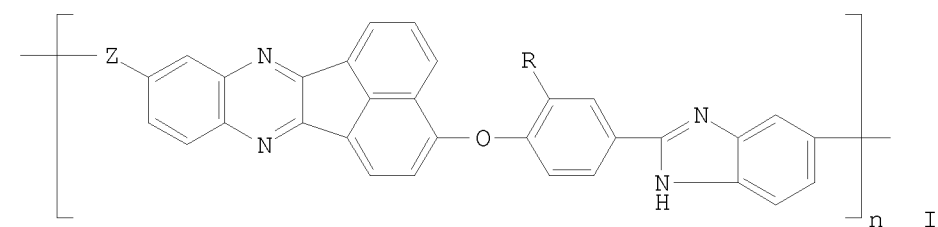
RN 83429-20-3 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 1,3,8-trinitro- (CA INDEX NAME)



IT 83429-21-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 83429-21-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 1,3,7-trinitro- (CA INDEX NAME)



L6 ANSWER 18 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1983:35048 CAPLUS
 DN 98:35048
 OREF 98:5495a,5498a
 TI Synthesis and properties of poly(quinoxaline benzimidazoles) based on
 esters of acenaphthenequinone-4-oxyphenylcarboxylic acids
 AU Perepechkina, E. P.; Bogdanov, M. N.; Romanova, T. A.; Kudryavtsev, G. I.
 CS Nauchno-Proizvod. Ob'edin. "Khimvolokno", Moscow, USSR
 SO Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1982),
 24(9), 672-4
 CODEN: VYSBAI; ISSN: 0507-5483
 DT Journal
 LA Russian
 GI



AB The Et and Ph esters of acenaphthenequinone-4-oxyphenylcarboxylic acids were prepared and polycondensed with tetraamines to obtain I (R = H or Br; Z = O or SO₂), II, and III having initial oxidative degradation temperature 460-530° and 20% weight-loss temperature 540-600°. I (R = H) and p-III formed films and fibers and I (R = Br, Z = O) [84101-11-1] gave fire-resistant films. The polycondensation was started at 100-110° and continued at 150-160° to prevent crosslinking.

IT 84101-09-7P 84101-13-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)

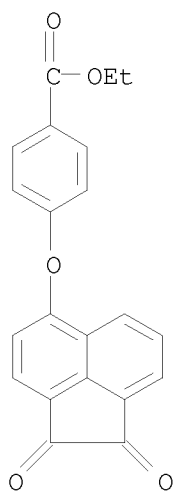
RN 84101-09-7 CAPLUS

CN Benzoic acid, 4-[(1,2-dihydro-1,2-dioxo-5-acenaphthylenyl)oxy]-, ethyl ester, polymer with dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 84101-06-4

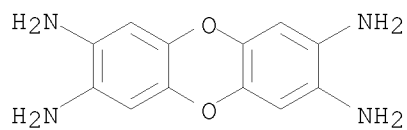
CMF C21 H14 O5



CM 2

CRN 34294-67-2

CMF C12 H12 N4 O2



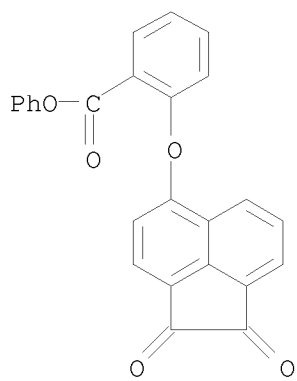
RN 84101-13-3 CAPLUS

CN Benzoic acid, 2-[(1,2-dihydro-1,2-dioxo-5-acenaphthylenyl)oxy]-, phenyl ester, polymer with dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 84101-12-2

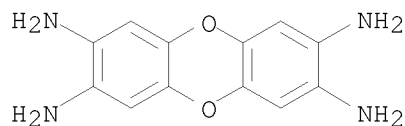
CMF C25 H14 O5



CM 2

CRN 34294-67-2

CMF C12 H12 N4 O2



L6 ANSWER 19 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1982:581852 CAPLUS

DN 97:181852

OREF 97:30409a,30412a

TI Meisenheimer spirocyclic complexes. XVI. Effect of a nitro group as a substituent in the pyrocatechol ring on cyclization of polynitrophenyl ethers of pyrocatechol to diphenylene dioxides

AU Knyazev, V. N.; Drozd, V. N.; Mozhaeva, T. Ya.

CS Mosk. S-kh. Akad., Moscow, USSR

SO Zhurnal Organicheskoi Khimii (1982), 18(8), 1683-91

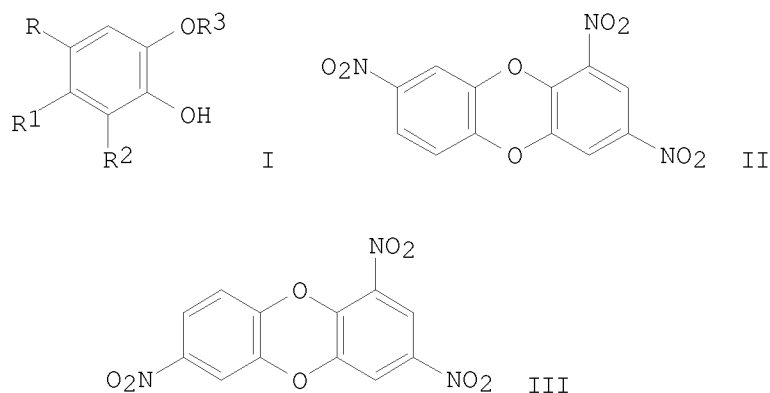
CODEN: ZORKAE; ISSN: 0514-7492

DT Journal

LA Russian

OS CASREACT 97:181852

GI



AB I [R, R1, R2 = H, H, NO2 (Ia); NO2, H, H (Ib); H, H, H; Cl, Cl, H; NO2, H, NO2; R3 = picryl throughout] were prepared and their reverse Smiles rearrangement behavior was studied. E.g., Ia and Et3N gave only 1,3,6-trinitrodiphenylene dioxide, but Ib gave the 1,3,7- and 1,3,8-isomers (II, III) in 1:2 ratio.

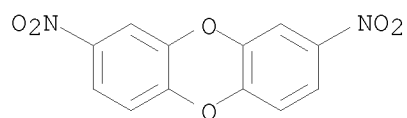
IT 71400-34-5P 83429-19-0P 83429-20-3P

83429-21-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

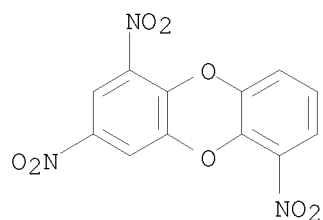
RN 71400-34-5 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



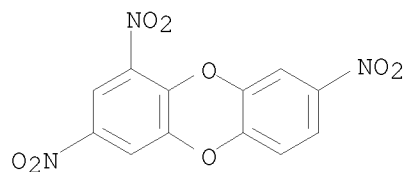
RN 83429-19-0 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 1,3,6-trinitro- (CA INDEX NAME)



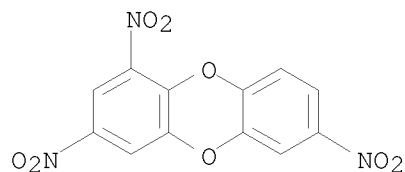
RN 83429-20-3 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 1,3,8-trinitro- (CA INDEX NAME)



RN 83429-21-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 1,3,7-trinitro- (CA INDEX NAME)



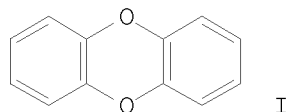
L6 ANSWER 20 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1982:180370 CAPLUS

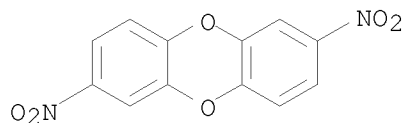
DN 96:180370

OREF 96:29715a,29718a

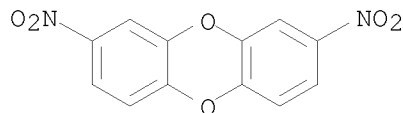
TI Electron transfer as an elementary stage of the electrophilic nitration of dibenzo-p-dioxin
 AU Morkovnik, A. S.; Belinskii, E. Yu.; Dobaeva, N. M.; Okhlobystin, O. Yu.
 CS Nauchno-Issled. Inst. Fiz. Org. Khim., Rostov. Gos. Univ., Rostov, USSR
 SO Zhurnal Organicheskoi Khimii (1982), 18(2), 378-86
 CODEN: ZORKAE; ISSN: 0514-7492
 DT Journal
 LA Russian
 GI



AB The nitration of I by HNO₃ was studied by ESR and electronic spectroscopy in CF₃CO₂H. When I was in excess, its cation radical was formed along with dinitrobenzo-p-dioxins (II). When HNO₃ was in excess, only II were formed. A 1-electron oxidation step was proposed for the nitration process.
 IT 71400-33-4P 71400-34-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)

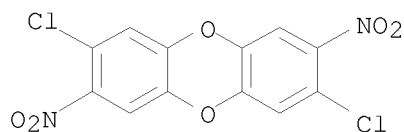


RN 71400-34-5 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)

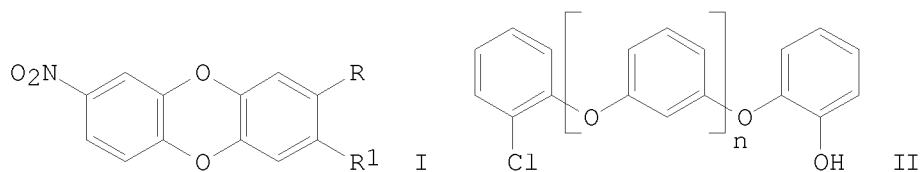


L6 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1982:117026 CAPLUS
 DN 96:117026
 OREF 96:19134h,19135a
 TI Structural factors affecting aryl hydrocarbon hydroxylase induction by dibenzo-p-dioxins and dibenzofurans
 AU Cheney, B. Vernon
 CS Res. Lab., Upjohn Co., Kalamazoo, MI, 49001, USA
 SO International Journal of Quantum Chemistry (1982), 21(2), 445-63
 CODEN: IJQCB2; ISSN: 0020-7608

DT Journal
 LA English
 AB Quant. structure-activity relationships were developed to rationalize the exptl. data obtained with a series of dibenzo-p-dioxins and dibenzofurans in the assays for receptor binding and aryl hydrocarbon hydroxylase (AHH) [9037-52-9] induction. Lateral substituents (in positions 2, 3, 7, and 8 of the tricyclic system) do not affect receptor binding and AHH induction in the same manner. Various hypotheses are suggested to explain this finding. Of special interest is the possibility that the lateral substituents are directly involved in the mechanism which transforms the receptor to the active state. The implications of this possibility are considered with regard to the design of an antidote for poisoning caused by the chlorinated congeners which occur as contaminants in certain com. products.
 IT 71721-79-4
 RL: BIOL (Biological study)
 (aryl hydrocarbon hydroxylase of liver response to, binding to liver in relation to)
 RN 71721-79-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dichloro-3,8-dinitro- (CA INDEX NAME)



L6 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1981:603847 CAPLUS
 DN 95:203847
 OREF 95:34064h,34065a
 TI The Smiles rearrangement of 2-aryloxy-5-nitrophenoxides. Attempted routes to benzoxirens and tribenzo[b,e,h]trioxonins
 AU Ramsden, Christopher A.
 CS Sch. Chem. Sci., Univ. East Anglia, Norwich, NR4 7TJ, UK
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1981), (9), 2456-63
 CODEN: JCPRB4; ISSN: 0300-922X
 DT Journal
 LA English
 OS CASREACT 95:203847
 GI

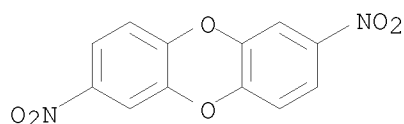


AB Self-condensation (150°, DMF) of KOC6H3BrNO₂-2,5 gave a mixture of the dioxins I (R ≠ R₁ = H, NO₂) via Smiles rearrangement of the intermediate (nitrophenoxy)nitrophenoxide. Smiles rearrangement of other (aryloxy)nitrophenoxides is also reported. An attempted synthesis of trioxonins gave linear products. E.g., thermal condensation of 2-ClC₆H₄OH (K₂CO₃, Cu powder, 170-200°, 6 h) gave 11% dibenzo-p-dioxin, 40% phenol II (n = 1) and 2% II (n = 4).

IT 71400-33-4P 71400-34-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reactions of, with alkoxides)

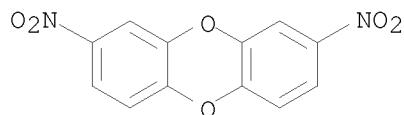
RN 71400-33-4 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



RN 71400-34-5 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



L6 ANSWER 23 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:569850 CAPLUS

DN 95:169850

OREF 95:28417a,28420a

TI Aliphatic polyamides containing tricyclic fused rings

AU Niume, Kazuma; Toda, Fujio; Uno, Keikichi; Hasegawa, M.; Iwakura, Y.

CS Fac. Eng., Univ. Tokyo, Hongo, 113, Japan

SO Makromolekulare Chemie (1981), 182(9), 2399-407
 CODEN: MACEAK; ISSN: 0025-116X

DT Journal

LA English

AB Polyamides containing thianthrene, phenoxathiin, and dibenzo-p-dioxin units were prepared from the corresponding diamines and adipyl or sebacyl chlorides by solution polymerization at low temperature. The polyamides had good thermal stability and solubility. Thermal stability increased in the order thianthrene < phenoxathin < dibenzo-p-dioxin. Glass transition temps. were estimated by thermomech. anal. and from temperature-resistivity curves. Polyamides derived from 2,8-tricyclic diamines showed somewhat lower glass transition temps. than those from 2,7-diamines.

IT 79637-32-4P 79637-33-5P 79637-34-6P
 79637-35-7P 79637-54-0P 79637-55-1P
 79637-56-2P 79637-57-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal properties of)

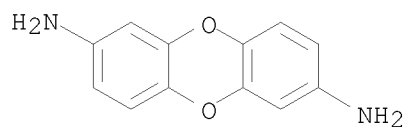
RN 79637-32-4 CAPLUS

CN Hexanedioyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine
(9CI) (CA INDEX NAME)

CM 1

CRN 71400-35-6

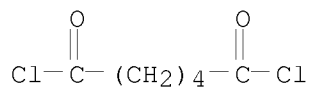
CMF C12 H10 N2 O2



CM 2

CRN 111-50-2

CMF C6 H8 C12 O2



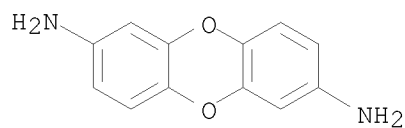
RN 79637-33-5 CAPLUS

CN Decanedioyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine
(9CI) (CA INDEX NAME)

CM 1

CRN 71400-35-6

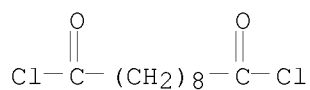
CMF C12 H10 N2 O2



CM 2

CRN 111-19-3

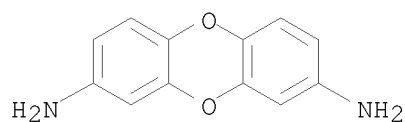
CMF C10 H16 C12 O2



RN 79637-34-6 CAPLUS
 CN Hexanedioyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine
 (9CI) (CA INDEX NAME)

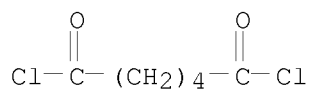
CM 1

CRN 71400-36-7
 CMF C12 H10 N2 O2



CM 2

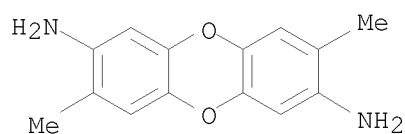
CRN 111-50-2
 CMF C6 H8 C12 O2



RN 79637-35-7 CAPLUS
 CN Hexanedioyl dichloride, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

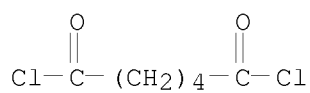
CM 1

CRN 71400-30-1
 CMF C14 H14 N2 O2



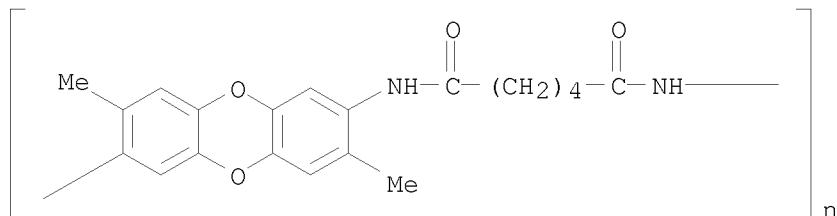
CM 2

CRN 111-50-2
 CMF C6 H8 C12 O2



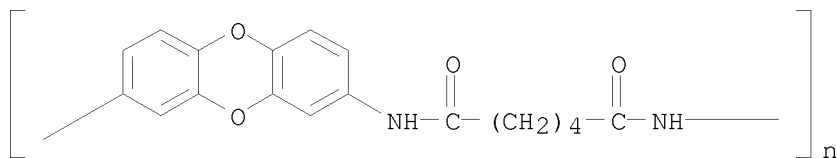
RN 79637-54-0 CAPLUS

CN Poly[(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)imino(1,6-dioxo-1,6-hexanediyl)imino] (9CI) (CA INDEX NAME)



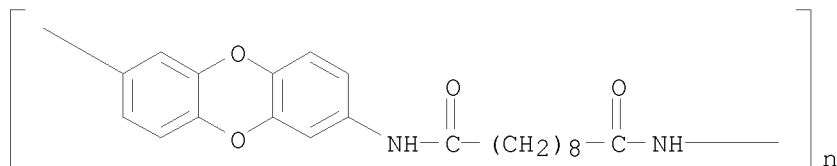
RN 79637-55-1 CAPLUS

CN Poly[dibenzo[b,e][1,4]dioxin-2,8-diylimino(1,6-dioxo-1,6-hexanediyl)imino] (9CI) (CA INDEX NAME)



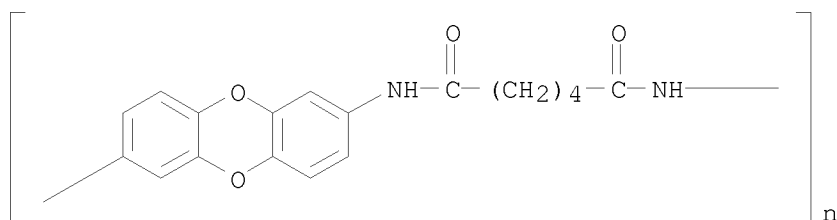
RN 79637-56-2 CAPLUS

CN Poly[dibenzo[b,e][1,4]dioxin-2,7-diylimino(1,10-dioxo-1,10-decanediyl)imino] (9CI) (CA INDEX NAME)



RN 79637-57-3 CAPLUS

CN Poly[dibenzo[b,e][1,4]dioxin-2,7-diylimino(1,6-dioxo-1,6-hexanediyl)imino] (9CI) (CA INDEX NAME)



L6 ANSWER 24 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:551257 CAPLUS

DN 95:151257

OREF 95:25337a,25340a

TI Thermal and electrical properties of polyimides containing tricyclic fused rings

AU Niume, K.; Hirohashi, R.; Toda, F.; Hasegawa, M.; Iwakura, Y.

CS Dep. Synth. Chem., Univ. Tokyo, Tokyo, 113, Japan

SO Polymer (1981), 22(5), 649-54

CODEN: POLMAG; ISSN: 0032-3861

DT Journal

LA English

AB Sixteen polyimides containing a series of tricyclic fused rings were prepared by

polymerization of the corresponding diamines with pyromellitic or benzophenonetetracarboxylic dianhydride, and their thermal and elec. properties were investigated. The thermal stability of the polymers increased in the order of those containing the groups thianthrene (I) < phenoxathiin (II) < dibenzo-p-dioxin (III). The polymers derived from 2,8-oriented tricyclic diamines had lower glass temps. than those derived from 2,7-oriented ones. The sp. resistivity of the polyimides decreased in the order I- > III- > II-containing polymers. The kink temps. in the temperature-dependence curves of sp. resistivity agreed with the glass temps. The photoconductive properties of the polymers were determined using a surface-type cell method. The photocurrent of the polyimides decreased in the order II- > III- > I-containing polymers. The ratio of the photo- to dark-current was 2-5.

IT 71402-28-3P 71402-29-4P 71402-30-7P

71402-31-8P 71402-32-9P 71402-33-0P

71402-46-5P 71402-47-6P 71402-48-7P

71402-49-8P 71402-50-1P 71402-51-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and thermal and elec. properties of)

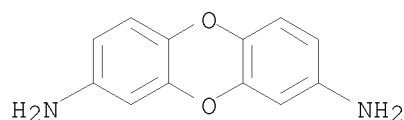
RN 71402-28-3 CAPLUS

CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-36-7

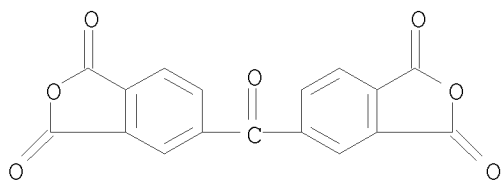
CMF C12 H10 N2 O2



CM 2

CRN 2421-28-5

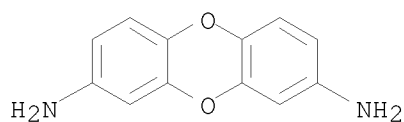
CMF C17 H6 O7



RN 71402-29-4 CAPLUS
 CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with
 dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

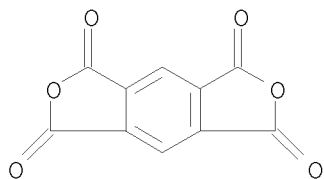
CM 1

CRN 71400-36-7
 CMF C12 H10 N2 O2



CM 2

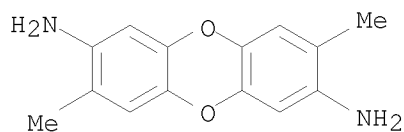
CRN 89-32-7
 CMF C10 H2 O6



RN 71402-30-7 CAPLUS
 CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with
 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

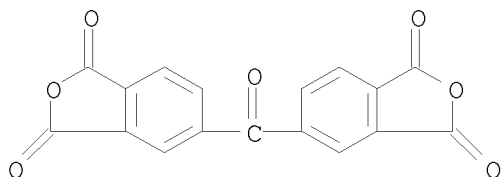
CRN 71400-30-1
 CMF C14 H14 N2 O2



CM 2

CRN 2421-28-5

CMF C17 H6 O7



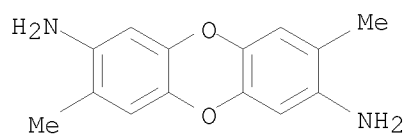
RN 71402-31-8 CAPLUS

CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with
3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-30-1

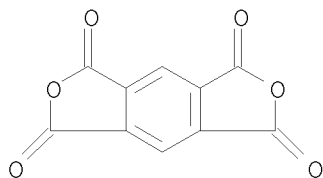
CMF C14 H14 N2 O2



CM 2

CRN 89-32-7

CMF C10 H2 O6



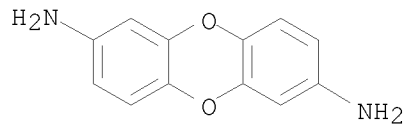
RN 71402-32-9 CAPLUS

CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with
dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-35-6

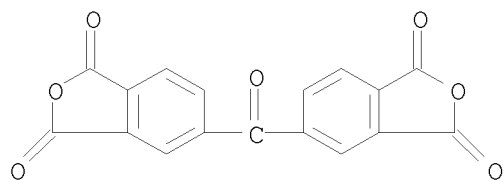
CMF C12 H10 N2 O2



CM 2

CRN 2421-28-5

CMF C17 H6 O7



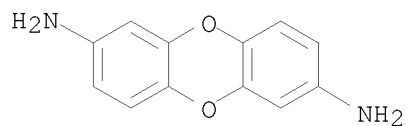
RN 71402-33-0 CAPLUS

CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with
dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-35-6

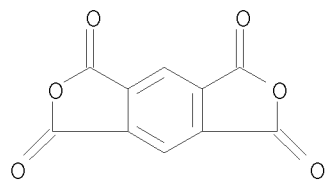
CMF C12 H10 N2 O2



CM 2

CRN 89-32-7

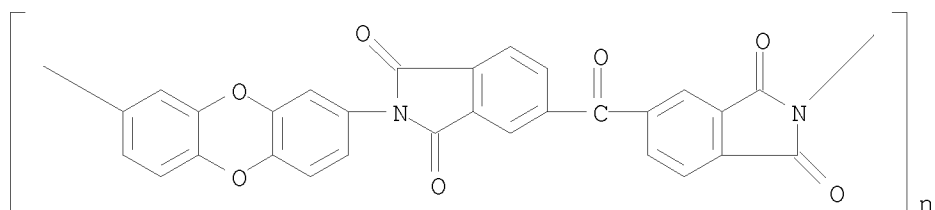
CMF C10 H2 O6



RN 71402-46-5 CAPLUS

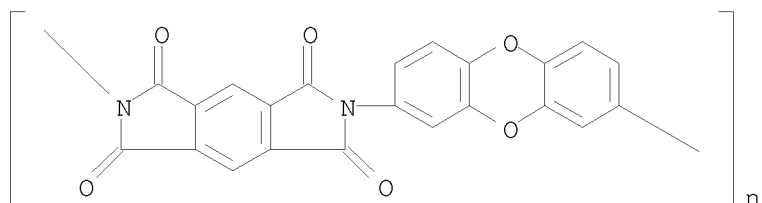
CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-
dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA

INDEX NAME)



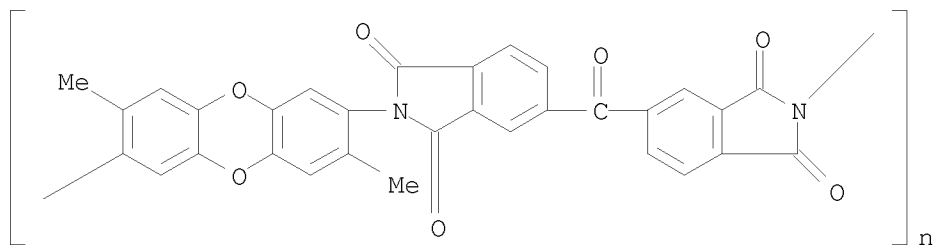
RN 71402-47-6 CAPLUS

CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA INDEX NAME)



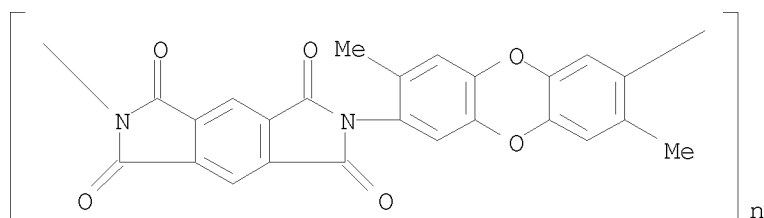
RN 71402-48-7 CAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)



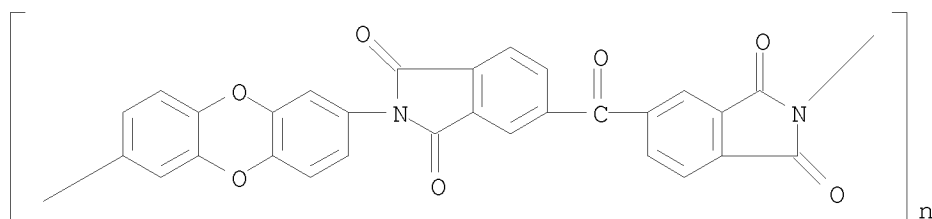
RN 71402-49-8 CAPLUS

CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)



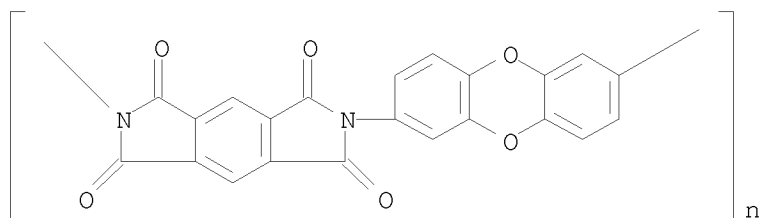
RN 71402-50-1 CAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



RN 71402-51-2 CAPLUS

CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



L6 ANSWER 25 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:16960 CAPLUS

DN 94:16960

OREF 94:2839a,2842a

TI Synthesis and properties of fiber-forming poly(quinoxalinebenzimidazobenzo phenanthrolines)

AU Perepechkina, E. P.; Ivanova, T. I.; Romanova, T. A.; Bogdanov, M. N.; Kudryavtsev, G. I.

CS USSR

SO Khimicheskie Volokna (1980), (5), 18-20

CODEN: KVLKA4; ISSN: 0023-1118

DT Journal

LA Russian

AB Polyquinoxaline fibers with increased thermal stability are prepared on

introduction of other heterocyclic groups into the polymer chain. The benzimidazole and benzophenanthroline group-containing polyquinoxalines were prepared in a 2-stage process by polymerization of aromatic tetramines with aromatic tetraketones in the 1st stage, followed by the reaction of the formed oligomer with 1,4,5,8-naphthalenetetracarboxylic acid in the 2nd stage, at 130-5 and 100-70°, resp. The structure of the formed heterocyclic polymers was confirmed by IR spectroscopy. The presence of O bridges in the polymer components increased the degradation rate of the polymers. Fibers with the highest thermal stability were prepared from polymers having the most rigid chain and containing no bridging groups.

IT 76067-41-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(fibers, preparation and properties of)

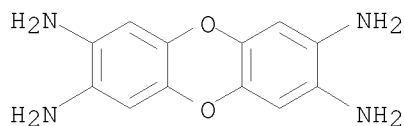
RN 76067-41-9 CAPLUS

CN Ethanedione, 1,1'-(1,4-phenylene)bis[2-phenyl-, polymer with
dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine tetrahydrochloride (9CI) (CA
INDEX NAME)

CM 1

CRN 16435-75-9

CMF C12 H12 N4 O2 . 4 Cl H

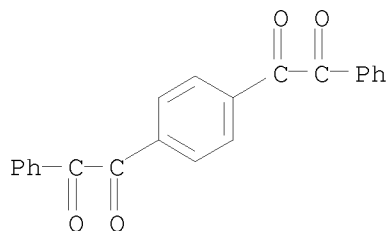


● 4 HCl

CM 2

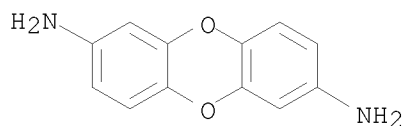
CRN 3363-97-1

CMF C22 H14 O4

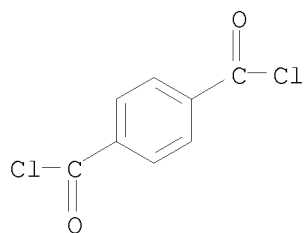


L6 ANSWER 26 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980:532852 CAPLUS

DN 93:132852
 OREF 93:21203a,21206a
 TI Heat-resistant polymers with thianthrene analog units. II. Aromatic polyamides
 AU Niime, K.; Nakamichi, K.; Toda, F.; Uno, K.; Hasegawa, M.; Iwakura, Y.
 CS Fac. Eng., Univ. Tokyo, Tokyo, 113, Japan
 SO Journal of Polymer Science, Polymer Chemistry Edition (1980), 18(7), 2163-74
 CODEN: JPLCAT; ISSN: 0360-6376
 DT Journal
 LA English
 AB Polyamides containing thianthrene, phenoxathiin, and dibenzo-p-dioxin units were prepared by solution polymerization of the required 2,7- and 2,8-diamines with m- or p-C₆H₄(COCl)₂ at low temperature. The amorphous polyisophthalamides were highly soluble in polar organic solvents; some of the polyterephthalamides with a fair degree of crystallinity were insol. Solubility increased in the order dibenzodioxin < phenoxathiin < thianthrene polymers. Thermal stability increased in the reverse order, the dibenzodioxin polymers being more stable than the corresponding open-chain polymers containing di-Ph ether linkages. Polyamides prepared from the 2,8-diamines had lower glass transition temps. than those prepared from the 2,7-diamines.
 IT 74937-64-7P 74937-65-8P 74937-66-9P
 74937-67-0P 74937-68-1P 74937-69-2P
 74937-94-3P 74937-95-4P 74937-96-5P
 74937-97-6P 74937-98-7P 74937-99-8P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and thermal stability of)
 RN 74937-64-7 CAPLUS
 CN 1,4-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)
 CM 1
 CRN 71400-35-6
 CMF C12 H10 N2 O2



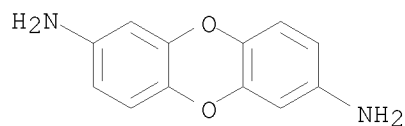
CM 2
 CRN 100-20-9
 CMF C8 H4 C12 O2



RN 74937-65-8 CAPLUS
 CN 1,3-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

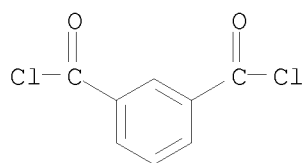
CM 1

CRN 71400-35-6
 CMF C12 H10 N2 O2



CM 2

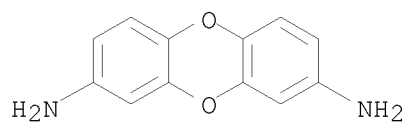
CRN 99-63-8
 CMF C8 H4 C12 O2



RN 74937-66-9 CAPLUS
 CN 1,4-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

CM 1

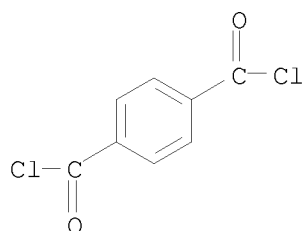
CRN 71400-36-7
 CMF C12 H10 N2 O2



CM 2

CRN 100-20-9

CMF C8 H4 Cl2 O2



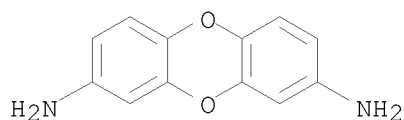
RN 74937-67-0 CAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-36-7

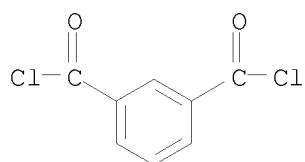
CMF C12 H10 N2 O2



CM 2

CRN 99-63-8

CMF C8 H4 Cl2 O2



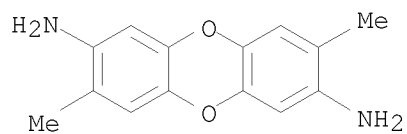
RN 74937-68-1 CAPLUS

CN 1,4-Benzenedicarbonyl dichloride, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-30-1

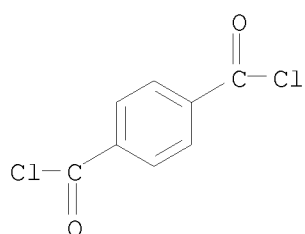
CMF C14 H14 N2 O2



CM 2

CRN 100-20-9

CMF C8 H4 C12 O2



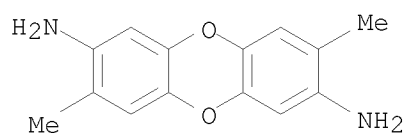
RN 74937-69-2 CAPLUS

CN 1,3-Benzenedicarbonyl dichloride, polymer with 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-30-1

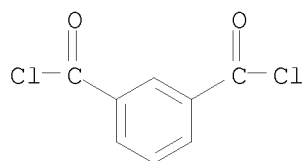
CMF C14 H14 N2 O2



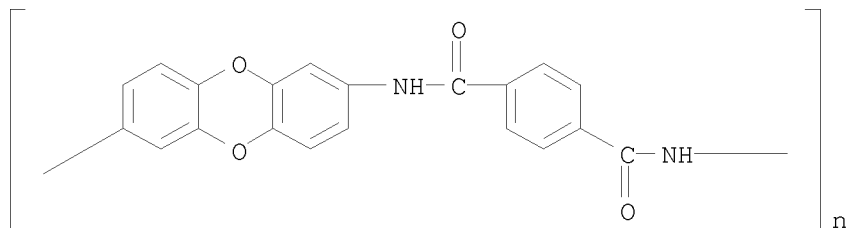
CM 2

CRN 99-63-8

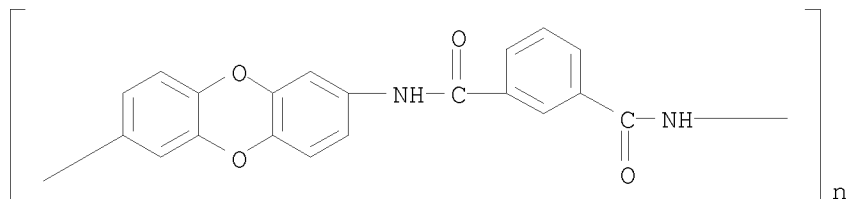
CMF C8 H4 C12 O2



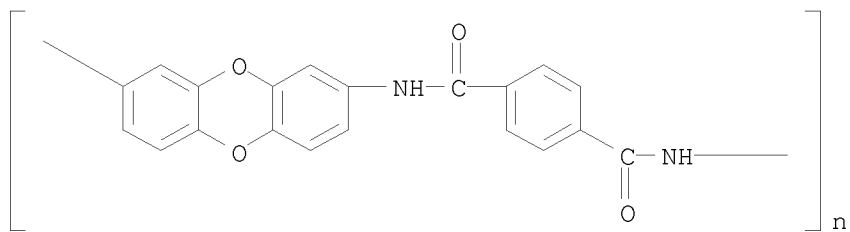
RN 74937-94-3 CAPLUS
 CN Poly(dibenzo[b,e][1,4]dioxin-2,7-diyliminocarbonyl-1,4-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



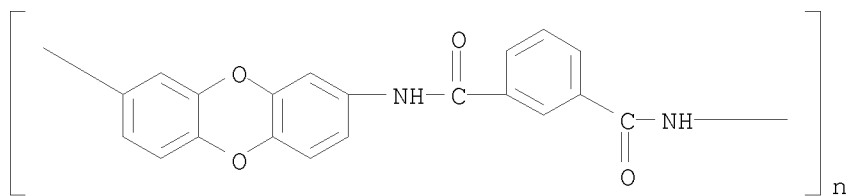
RN 74937-95-4 CAPLUS
 CN Poly(dibenzo[b,e][1,4]dioxin-2,7-diyliminocarbonyl-1,3-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



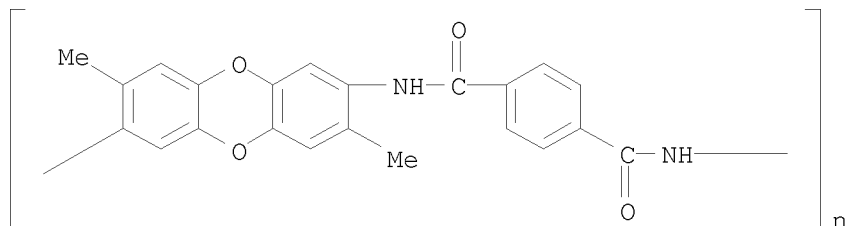
RN 74937-96-5 CAPLUS
 CN Poly(dibenzo[b,e][1,4]dioxin-2,8-diyliminocarbonyl-1,4-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



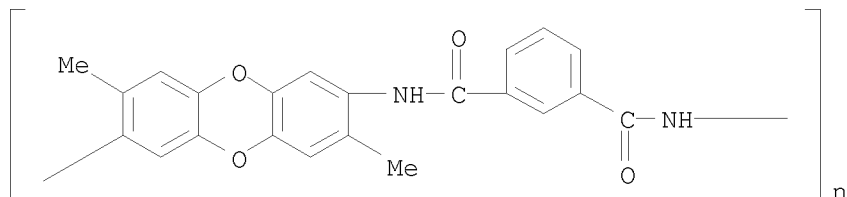
RN 74937-97-6 CAPLUS
 CN Poly(dibenzo[b,e][1,4]dioxin-2,8-diyliminocarbonyl-1,3-phenylenecarbonylimino) (9CI) (CA INDEX NAME)



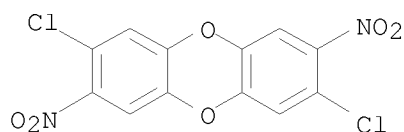
RN 74937-98-7 CAPLUS
 CN Poly[(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)iminocarbonyl-1,4-phenylenecarbonylimino] (9CI) (CA INDEX NAME)



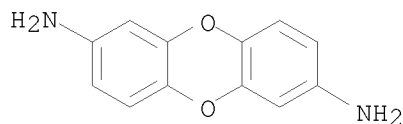
RN 74937-99-8 CAPLUS
 CN Poly[(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)iminocarbonyl-1,3-phenylenecarbonylimino] (9CI) (CA INDEX NAME)



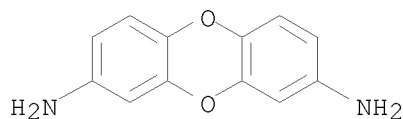
L6 ANSWER 27 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1980:57956 CAPLUS
 DN 92:57956
 OREF 92:9595a,9598a
 TI Electronic factors affecting receptor binding of dibenzo-p-dioxins and dibenzofurans
 AU Cheney, B. Vernon; Tolly, Timothy
 CS Res. Lab., Upjohn Co., Kalamazoo, MI, 49001, USA
 SO International Journal of Quantum Chemistry (1979), 16(1), 87-110
 CODEN: IJQCB2; ISSN: 0020-7608
 DT Journal
 LA English
 AB The electronic structure of 25 chlorinated dibenzo-p-dioxins and dibenzofurans, characterized using the ab initio mol.-fragment technique, was employed in a quant. structure-activity relationship involving electronic and steric parameters for the hepatic cytosol-binding species previously described (Poland, A., et al, 1976). The toxins act as electron acceptors in a charge-transfer complex with the receptor.
 IT 71721-79-4
 RL: PRP (Properties)
 (electronic structure of, biol. activity in relation to)
 RN 71721-79-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dichloro-3,8-dinitro- (CA INDEX NAME)



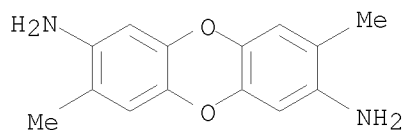
L6 ANSWER 28 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1979:541483 CAPLUS
 DN 91:141483
 OREF 91:22831a,22834a
 TI Heat-resistant polymers containing thianthrene analogs units. I.
 Polyimides
 AU Niime, K.; Nakamichi, K.; Takatuka, R.; Toda, F.; Uno, K.; Iwakura, Y.
 CS Fac. Eng., Univ. Tokyo, Tokyo, 113, Japan
 SO Journal of Polymer Science, Polymer Chemistry Edition (1979), 17(8),
 2371-85
 CODEN: JPLCAT; ISSN: 0360-6376
 DT Journal
 LA English
 AB Heat-resistant polyimides were prepared from pyromellitic dianhydride or
 benzophenone tetracarboxylic dianhydride and 2,8-diaminodibenzo-p-dioxin
 [71400-36-7], 2,7-diaminodibenzo-p-dioxin [71400-35-6
], 2,7-diamino-3,8-dimethyldibenzo-p-dioxin [71400-30-1], or
 2,7-diaminothianthrene [60785-14-0]. The polyimides that contained
 dibenzo-p-dioxin units exhibited sufficient thermal stability and were
 insol., even in concentrated H2SO4; the introduction of Me groups did not
 appreciably increase the soluble Thianthrene polyimides were considerably
 less stable than the equivalent polymers derived from 4,4'-diaminodiphenyl
 sulfide but were partly soluble in acid solvents. The results were discussed
 in terms of mol. packing.
 IT 71400-35-6P 71400-36-7P
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic
 preparation); PREP (Preparation); PROC (Process)
 (preparation and polymerization of, with aromatic dianhydrides)
 RN 71400-35-6 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine (CA INDEX NAME)



RN 71400-36-7 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,8-diamine (CA INDEX NAME)



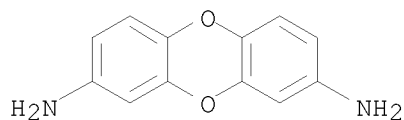
IT 71400-30-1P
 RL: PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (preparation and polymerization of, with dianhydrides)
 RN 71400-30-1 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,7-diamine, 3,8-dimethyl- (CA INDEX NAME)



IT 71402-28-3P 71402-29-4P 71402-30-7P
 71402-31-8P 71402-32-9P 71402-33-0P
 71402-46-5P 71402-47-6P 71402-48-7P
 71402-49-8P 71402-50-1P 71402-51-2P
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
 (preparation and properties of)
 RN 71402-28-3 CAPLUS
 CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with
 dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

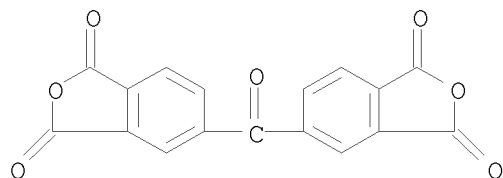
CM 1

CRN 71400-36-7
 CMF C12 H10 N2 O2



CM 2

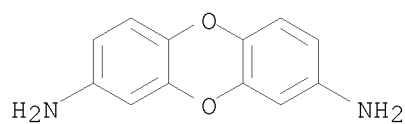
CRN 2421-28-5
 CMF C17 H6 O7



RN 71402-29-4 CAPLUS
 CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with
 dibenzo[b,e][1,4]dioxin-2,8-diamine (9CI) (CA INDEX NAME)

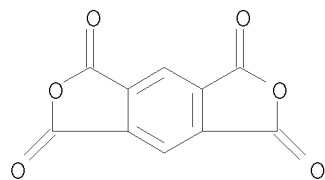
CM 1

CRN 71400-36-7
 CMF C12 H10 N2 O2



CM 2

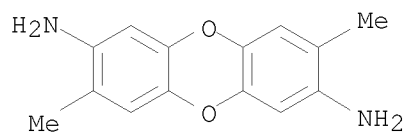
CRN 89-32-7
 CMF C10 H2 O6



RN 71402-30-7 CAPLUS
 CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with
 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

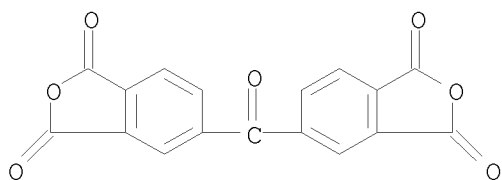
CM 1

CRN 71400-30-1
 CMF C14 H14 N2 O2



CM 2

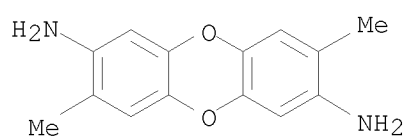
CRN 2421-28-5
 CMF C17 H6 O7



RN 71402-31-8 CAPLUS
 CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with
 3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

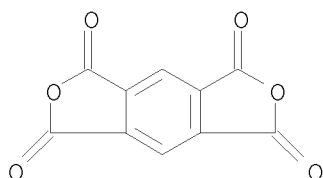
CM 1

CRN 71400-30-1
 CMF C14 H14 N2 O2



CM 2

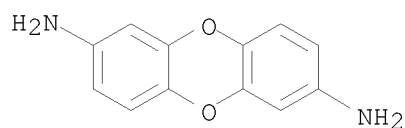
CRN 89-32-7
 CMF C10 H2 O6



RN 71402-32-9 CAPLUS
 CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with
 dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

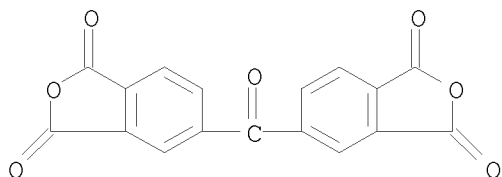
CRN 71400-35-6
 CMF C12 H10 N2 O2



CM 2

CRN 2421-28-5

CMF C17 H6 O7



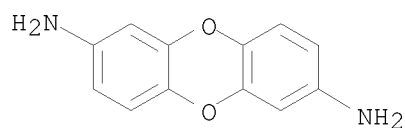
RN 71402-33-0 CAPLUS

CN 1H,3H-Benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone, polymer with
dibenzo[b,e][1,4]dioxin-2,7-diamine (9CI) (CA INDEX NAME)

CM 1

CRN 71400-35-6

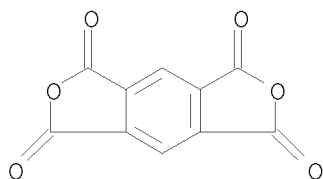
CMF C12 H10 N2 O2



CM 2

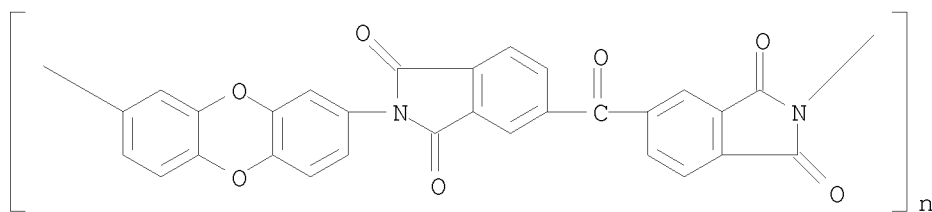
CRN 89-32-7

CMF C10 H2 O6



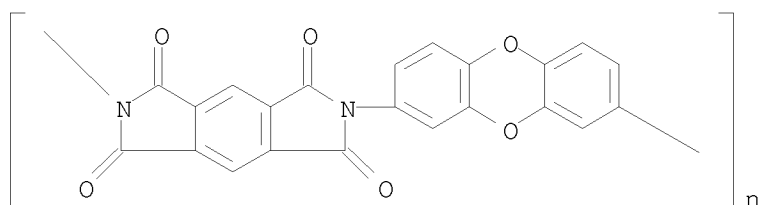
RN 71402-46-5 CAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-
dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA
INDEX NAME)



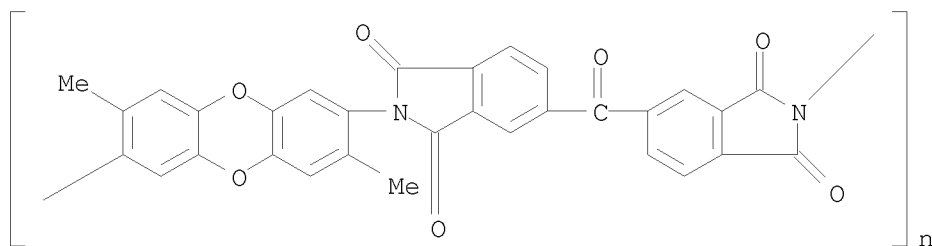
RN 71402-47-6 CAPLUS

CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,8-diyl] (9CI) (CA INDEX NAME)



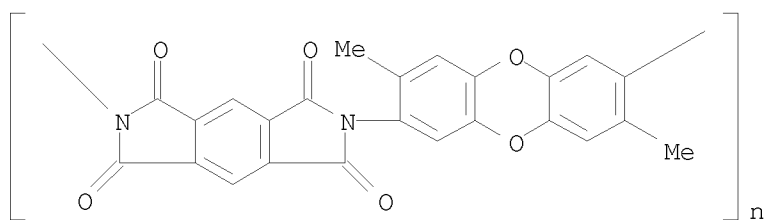
RN 71402-48-7 CAPLUS

CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)

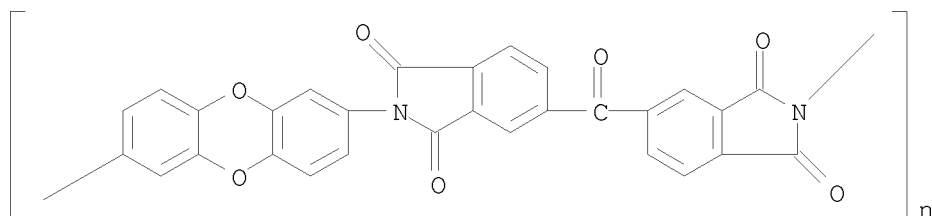


RN 71402-49-8 CAPLUS

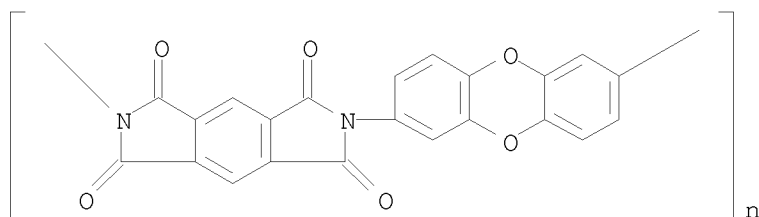
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)] (9CI) (CA INDEX NAME)



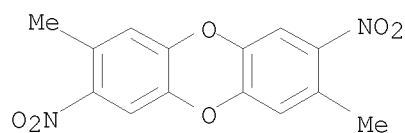
RN 71402-50-1 CAPLUS
 CN Poly[(1,3-dihydro-1,3-dioxo-2H-isoindole-2,5-diyl)carbonyl(1,3-dihydro-1,3-dioxo-2H-isoindole-5,2-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



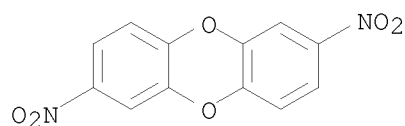
RN 71402-51-2 CAPLUS
 CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)dibenzo[b,e][1,4]dioxin-2,7-diyl] (9CI) (CA INDEX NAME)



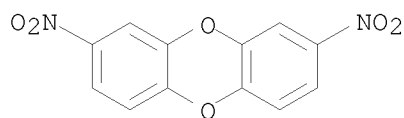
IT 14967-03-4P 71400-33-4P 71400-34-5P
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
 (preparation and reduction of)
 RN 14967-03-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)



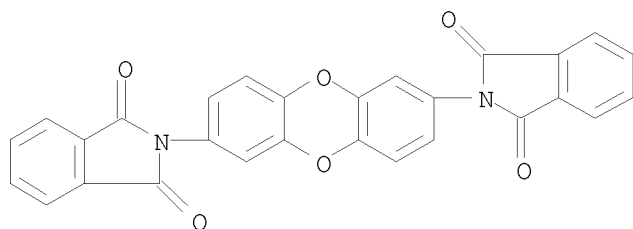
RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



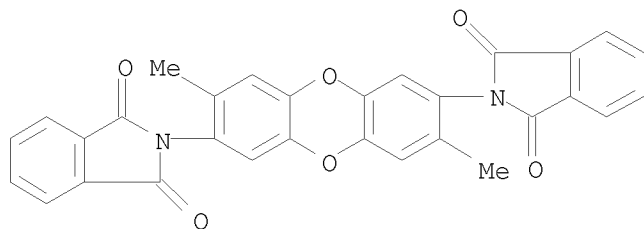
RN 71400-34-5 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro- (CA INDEX NAME)



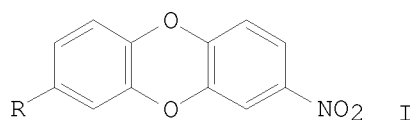
IT 71400-37-8P 71400-38-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 71400-37-8 CAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2,2'-dibenzo[b,e][1,4]dioxin-2,7-diylbis-
 (9CI) (CA INDEX NAME)



RN 71400-38-9 CAPLUS
 CN 1H-Isoindole-1,3(2H)-dione, 2,2'-(3,8-dimethyldibenzo[b,e][1,4]dioxin-2,7-diyl)bis- (9CI) (CA INDEX NAME)



L6 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1977:15868 CAPLUS
 DN 86:15868
 OREF 86:2581a,2584a
 TI ESR spectra of the nitrodibenzo-p-dioxin radical species
 AU Baci, I.; Hillebrand, Mihaela; Sahini, V. E.; Volanschi, Elena
 CS Dep. Phys. Chem., Polytech. Inst., Bucharest, Rom.
 SO Revue Roumaine de Chimie (1976), 21(4), 485-9
 CODEN: RRCHAX; ISSN: 0035-3930
 DT Journal
 LA English
 GI

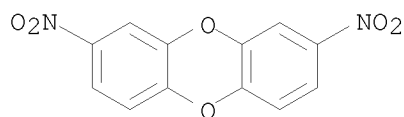


AB The hyperfine splitting consts. in the ESR of the radical cation and anion of I (R = H) and the radical cation of I (R = NO₂) were calculated by Hueckell and McLachlan MO methods. Little spin was observed on the NO₂ groups in the radical cations while most of the spin d. was localized on the NO₂ group in the radical anion.

IT 61240-47-9
RL: PRP (Properties)
(ESR of, hyperfine splittings in, NMR calcn. of)

RN 61240-47-9 CAPLUS

CN Dibenzo[b,e][1,4]dioxin, 2,8-dinitro-, radical ion(1+) (9CI) (CA INDEX NAME)



L6 ANSWER 30 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1974:133360 CAPLUS

DN 80:133360

OREF 80:21509a,21512a

TI Synthesis and Fourier transform carbon-13 spectroscopy of new toxic polyhalodibenzo-p-dioxins

AU Kende, Andrew S.; Wade, James J.; Ridge, David; Poland, Alan

CS Dep. Chem., Univ. Rochester, Rochester, NY, USA

SO Journal of Organic Chemistry (1974), 39(7), 931-7
CODEN: JOCEAH; ISSN: 0022-3263

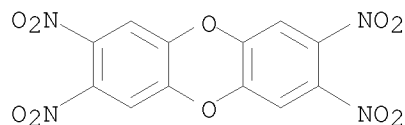
DT Journal

LA English

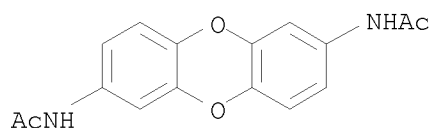
AB The extraordinary toxicity and potential environmental significance of certain polyhalodibenzo-p-dioxins has led to the regiospecific syntheses of these compds. by condensation of catechol derivs. with various polyhalobenzenes. Electrophilic halogenation of 2,3-dihalodibenzo-p-dioxins, available by the above route, leads mainly to 2,3,7,8-tetrahalo derivs., but these are more cleanly obtained by direct condensation of 4,5-dichlorocatechol with 1,2,4,5-tetrahalobenzenes. Fourier transform ¹³C spectroscopy is a useful structural probe in this series. Some structure-activity relations for enzyme induction by polyhalodibenzo-p-dioxins are outlined.

IT 52354-40-2 52354-41-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(structure activity relation for aryl hydrocarbon hydroxylase induction)

in chick embryo liver)
 RN 52354-40-2 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetranitro- (CA INDEX NAME)



RN 52354-41-3 CAPLUS
 CN Acetamide, N,N'-dibenzo[b,e][1,4]dioxin-2,7-diylbis- (CA INDEX NAME)



L6 ANSWER 31 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1972:514413 CAPLUS

DN 77:114413

OREF 77:18857a,18860a

TI Catalytic preparation of dibenzopdioxins

IN Lester, George R.; Brennan, John F.

PA Universal Oil Products Co.

SO U.S., 3 pp.

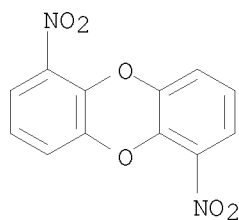
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3679704	A	19720725	US 1969-848359	19690807
PRAI	US 1969-848359	A	19690807		
GI	For diagram(s), see printed CA Issue.				
AB	The dibenzo-p-dioxins (I, R = H, Me, Et, MeO, NO ₂) were prepared by catalytic dimerization of phenols by PdCl ₂ -Cu. Thus, 130 mmole o-cresol, 11 mmole PdCl ₂ , 340 mmole CuCl ₂ , and 100 mmole NaOAc in HOAc was refluxed to give I (R = Me).				
IT	37061-69-1P				
	RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)				
RN	37061-69-1 CAPLUS				
CN	Dibenzo[b,e][1,4]dioxin, 1,6-dinitro- (CA INDEX NAME)				



L6 ANSWER 32 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1971:552388 CAPLUS
 DN 75:152388
 OREF 75:24041a,24044a
 TI Heat stable ladder polymers
 IN Grundschober, Friedrich; Arendt, John H.
 PA Centre National d'Etudes Spatiales
 SO Ger. Offen., 17 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2059079	B2	19740117	DE 1970-2059079	19701201
	DE 2059079	C3	19740815		
	FR 2070327	A5	19710910	FR 1969-41392	19691201
	GB 1323606	A	19730718	GB 1970-55130	19701119
	US 3681284	A	19720801	US 1970-93748	19701130
	JP 48030153	B	19730918	JP 1970-106237	19701201
PRAI	FR 1969-41392	A	19691201		

AB Heat stable pyromalic (sic)dianhydride-2,3,7,8-tetraaminodibenzo-p-dioxin ladder copolymer (I) films with good tensile strength and dimensional stability were prepared Thus, treatment of 2,3,7,8-tetraaminodibenzo-p-dioxin, prepared by nitration of dibenzo-p-dioxin and subsequent reduction with pyromalic (sic) dianhydride in AcNMe₂ at - 10 to - 15° and cooling at - 80° gave a prepolymer with viscosity 15 P. Polymerization of a prepolymer film for 2.5 hr at 150-370° gave a dark red 22 μ I film with elongation at break 3%, breaking strength 12.5 kg/mm², elasticity modulus 440 kg/mm² at 25°, and weight loss 1.5% after 4 hr at 450°, in vacuo.

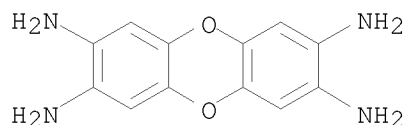
IT 34294-67-2

RL: USES (Uses)

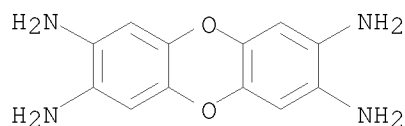
(polyimides, manufacture of heat-resistant)

RN 34294-67-2 CAPLUS

CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine (CA INDEX NAME)

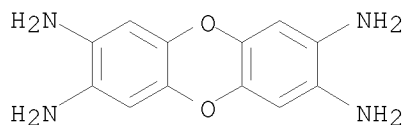


L6 ANSWER 33 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1968:115064 CAPLUS
 DN 68:115064
 OREF 68:22211a,22214a
 TI Thermally stable ladder polyquinoxalines
 AU Stille, John K.; Mainen, E. L.
 CS Univ. of Iowa, Iowa City, IA, USA
 SO Macromolecules (1968), 1(1), 36-42
 CODEN: MAMOBX; ISSN: 0024-9297
 DT Journal
 LA English
 AB Five thermally stable quinoxaline polymers were prepared by condensation of the aromatic tetramines 1,2,4,5-tetraminobenzene and 2,3,6,7-tetraminodibenzo-p-dioxin with 2,5-dihydroxy-p-benzoquinone or the tetraketones 1,2,6,7-tetraketopyrene and 1,2,5,6-tetraketoanthracene. All of the polymers obtained were completely soluble in 1,3-dichloro-1,1,3,3-tetrafluoro-2,2-dihydroxypropane. The polymers prepared by the condensation of 1,2,4,5-tetraminobenzene with the tetraketones 1,2,6,7-tetraketopyrene and 1,2,5,6-tetraketoanthracene had mol. wts. of 7000 and 12,000, resp. All of the polymers obtained had good heat stability in air, although the ladder polymers were not significantly more stable than the single-strand polyquinoxalines. The thermal stability of the ladder polymers in N was considerably greater than that of the corresponding single-strand polymer.
 IT 16435-75-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 16435-75-9 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin-2,3,7,8-tetramine, tetrahydrochloride (9CI) (CA INDEX NAME)



● 4 HCl

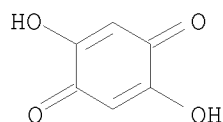
IT 30326-66-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, ring closure in)
 RN 30326-66-0 CAPLUS
 CN p-Benzoquinone, 2,5-dihydroxy-, polymer with dibenzo-p-dioxin-2,3,7,8-tetramine (8CI) (CA INDEX NAME)
 CM 1
 CRN 34294-67-2
 CMF C12 H12 N4 O2



CM 2

CRN 615-94-1

CMF C6 H4 O4



L6 ANSWER 34 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1967:517373 CAPLUS
 DN 67:117373
 OREF 67:22151a,22154a
 TI Ladder polyquinoxalines from an aliphatic tetraketone
 AU Stille, John K.; Freeburger, Michael E.
 CS Univ. of Iowa, Iowa City, IA, USA
 SO Journal of Polymer Science, Polymer Letters Edition (1967), 5(11), 989-92
 CODEN: JPYBAN; ISSN: 0360-6384
 DT Journal
 LA English
 AB Ladder polyquinoxalines (I) (C₁₆H₁₄N₄)_n were prepared in 73% yield by the polymerization of 3,3,6,6-tetramethylcyclohexane-1,2,4,5-tetraone (II) with 1,2,4,5-tetraaminobenzene in dioxane solns. at 180° for 17 hrs. When II was treated 24 hrs. at 180° with 2,3,6,7-tetraaminobenzodioxane tetrahydrochloride in dioxanepyridine solns. it gave 67% polyquinoxaline (C₂₂H₁₆N₄O₂)_n (III) with inherent viscosity 0.02 [hexamethylphosphoramide (IV) at 25°]. The polymerization failed in IV solns. Thermal gravimetric analyses of I and III showed that they were less stable than ladder polyquinoxalines containing a totally aromatic backbone. I and III decomposed in air at 390° and 200°, resp. The uv and visible spectra of I and III were given and compared with those of bisquinoxaline prepared by treating II with o-phenylenediamine.

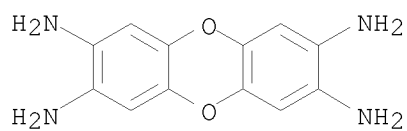
IT 30921-40-5
 RL: USES (Uses)
 (ladder, thermal decomposition and spectrum of)

RN 30921-40-5 CAPLUS
 CN 1,2,4,5-Cyclohexanetetraone, 3,3,6,6-tetramethyl-, polymer with dibenzo-p-dioxin-2,3,7,8-tetramine (8CI) (CA INDEX NAME)

CM 1

CRN 34294-67-2

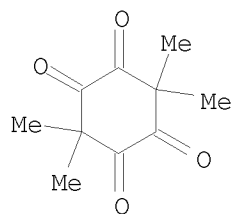
CMF C12 H12 N4 O2



CM 2

CRN 13855-97-5

CMF C10 H12 O4



IT 30921-40-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of ladder, thermal decomposition and visible and uv spectrum

of)

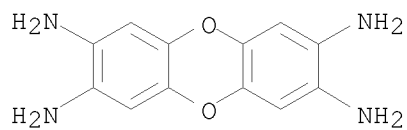
RN 30921-40-5 CAPLUS

CN 1,2,4,5-Cyclohexanetetrone, 3,3,6,6-tetramethyl-, polymer with
dibenzo-p-dioxin-2,3,7,8-tetramine (8CI) (CA INDEX NAME)

CM 1

CRN 34294-67-2

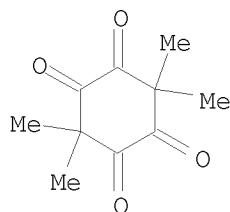
CMF C12 H12 N4 O2



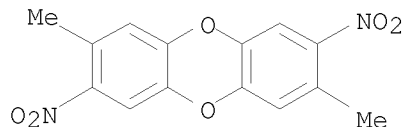
CM 2

CRN 13855-97-5

CMF C10 H12 O4

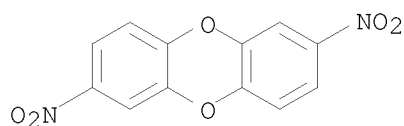


L6 ANSWER 35 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1967:454088 CAPLUS
 DN 67:54088
 OREF 67:10175a,10178a
 TI Nitration of 2,7-diacetyl-3,8-dimethyldibenzo-p-dioxin
 AU Govindachari, Tuticorin R.; Sathe, S. S.; Viswanathan, N.
 CS CIBA Res. Center Goregaon, Bombay, India
 SO Indian Journal of Chemistry (1967), 5(3), 128
 CODEN: IJOCAP; ISSN: 0019-5103
 DT Journal
 LA English
 GI For diagram(s), see printed CA Issue.
 AB cf. Tomita, CA 31: 1041. Treatment of I (Tomita, loc cit) in HOAc with concentrated HNO₃ (d. 1.35) at 60-70° for 1 hr. gave a mixture containing unreacted I and II, m. >360° (gradually decomposing>340°), identical with an authentic sample prepared by the oxidation of I with NaOCl in aqueous dioxane. Treatment of II with ethereal CH₂N₂ gave the ester III, m. 220-2°. Oxidation of II with alkaline KMnO₄ gave IV, which with CH₂N₂ gave the ester (V), m. 196-7°. Nitration of I in HOAc using fuming HNO₃ (d. 1.50) at 70-80° gave 60% VI m. 240-1°, identical with an authentic sample prepared by nitration of VII according to the reported procedure (Tomita and Ueda, CA 54: 18528c). The ir and N.M.R. spectra of the various products are recorded. The results obtained are at variance with those recorded by Tomita (loc. cit).
 IT 14967-03-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 14967-03-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)

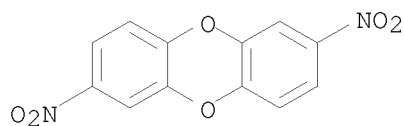


L6 ANSWER 36 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1964:82339 CAPLUS
 DN 60:82339
 OREF 60:14363e-f
 TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXIX. Electron spin resonance spectra of dibenzo-p-dioxin derivatives in antimony

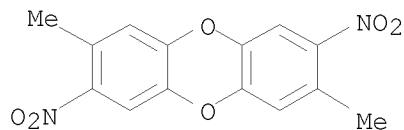
pentachloride
 AU Tomita, Masao; Ueda, Shinichi
 CS Univ. Kyoto, Japan
 SO Chemical & Pharmaceutical Bulletin (1964), 12(1), 40-2
 CODEN: CPBTAL; ISSN: 0009-2363
 DT Journal
 LA Unavailable
 AB Dibenzo-p-dioxin derivs. were blue in SbCl₅. E.S.R. spectra confirmed the presence of radical cations.
 IT 71400-33-4
 (Derived from data in the 7th Collective Formula Index (1962-1966))
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



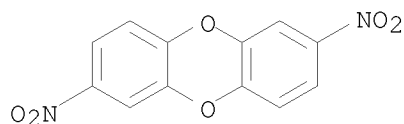
L6 ANSWER 37 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1964:82338 CAPLUS
 DN 60:82338
 OREF 60:14363e
 TI Dibenzo-p-dioxin (diphenylene dioxide) derivatives. XXXVIII. Color reaction of dibenzo-p-dioxin derivatives in concentrated sulfuric acid with oxidizing agents-detection by electron spin resonance (E.S.R.) spectra
 AU Tomita, Masao; Ueda, Shinichi
 CS Univ. Kyoto, Japan
 SO Chemical & Pharmaceutical Bulletin (1964), 12(1), 33-40
 CODEN: CPBTAL; ISSN: 0009-2363
 DT Journal
 LA Unavailable
 AB cf. CA 59, 15279g. Compds. based on the dibenzo-p-dioxin structure give a characteristic color (blue or green-blue, sometimes violet) in concentrated H₂SO₄ with an oxidizing agent (KNO₃). E.S.R. spectra show that the color is due to the formation of radical cations.
 IT 71400-33-4
 (Derived from data in the 7th Collective Formula Index (1962-1966))
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



IT 14967-03-4, Dibenzo-p-dioxin, 2,7-dimethyl-3,8-dinitro-
 (magnetic resonance absorption of, in H₂SO₄)
 RN 14967-03-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dimethyl-3,8-dinitro- (CA INDEX NAME)



L6 ANSWER 38 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1964:82337 CAPLUS
 DN 60:82337
 OREF 60:14363d-e
 TI Evidence of electron-exchange between the triphenylmethyl radical and triphenylmethyl cation in solution
 AU Lown, J. W.
 CS Univ. Alberta, Edmonton, Can.
 SO Proc. Chem. Soc. (1963), (Sept.), 283-4
 DT Journal
 LA Unavailable
 AB Addition of Ph_3C^+ (formed from Ph_3COH and $\text{CF}_3\text{CO}_2\text{H}$) to $\text{Ph}_3\text{C}^\cdot$ (formed from Ph_3CBr and Hg) in 3:7 $\text{CF}_3\text{CO}_2\text{H}$ - HOAc gave a solution whose electron paramagnetic resonance spectrum indicated exchange of an electron between the radical and the cation. The exchange was 1st order in each species, and the rate constant was estimated to be $1.3 \times 10^8 \text{ l. mole}^{-1} \text{ sec.}^{-1}$ at 25° .
 IT 71400-33-4
 (Derived from data in the 7th Collective Formula Index (1962-1966))
 RN 71400-33-4 CAPLUS
 CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)



L6 ANSWER 39 OF 52 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1964:7976 CAPLUS
 DN 60:7976
 OREF 60:1363e-f
 TI The condition of the double electrically charged layer of tantalite and of some accompanying minerals during flotation
 AU Naifonov, T. B.; Pol'kin, S. I.; Shafeev, R. Sh.
 CS Inst. Steel and Alloys, Moscow
 SO Izvestiya Vysshikh Uchebnykh Zavedenii, Tsvetnaya Metallurgiya (1963), 6(3), 40-6
 CODEN: IVUTAK; ISSN: 0021-3438
 DT Journal
 LA Unavailable
 AB During flotation (pH 6-8) the adsorption of the collector (oleic acid) by tantalite, tourmaline, and garnet occurs when the electrokinetic index reaches the highest value. The attraction of oleic acid to the surfaces

of the subject minerals is of chemisorption nature. The change in the elec. charge of the double layer is determined for different HCl and KOH concns. and adsorption potential for oleic acid at the surface of tantalite is calculated 16 references.

IT 71400-33-4, Dibenzo-p-dioxin, 2,7-dinitro-
(magnetic resonance absorption of, in H2SO4)
RN 71400-33-4 CAPLUS
CN Dibenzo[b,e][1,4]dioxin, 2,7-dinitro- (CA INDEX NAME)

